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VICTOR'S MONTHLY MAGAZINE.

NOVEMBER, 1878.

DURING a month we are asked a great many questions, and urged to give information on a good many subjects. To some of them we can respond with pleasure to ourselves, and, perhaps, not without some profit to those who seek the information; but to others we can give no satisfactory answer. Among several of the latter class, received recently, is one, the writer of which desired to be informed when and how to prune evergreen and ornamental trees. This is something that we never learned; but we have learned that He who created the trees of the forest and pronounced them good, made them of wondrous beauty, and man may mar, but cannot mend the work. Long as we can remember, have we looked almost with horror upon the man who would presumptuously and sacrilegiously assault the beautiful creations of nature with saw and pruning-knife. Twenty-seven years ago, when everybody seemed to have gone crazy on the subject of pruning, and after we had written several articles for the press, endeavoring to expose its folly, an article, by the late A. J. DOWNING, appeared in the *Horticulturist*, which was so in unison with our feelings that it has never been forgotten. It presents this subject in such a pleasant way that we know it will be appreciated by our readers.

In what does the beauty of a tree consist? We mean, of course, what may strictly be called an ornamental tree—not a tree planted for its fruit in the orchard, or for growing timber in

the forest, but standing alone in the lawn or meadow—growing in groups in the pleasure-ground, over-arching the road-side, or bordering some stately avenue.

Is it not, first of all, that such a tree, standing where it can grow untouched, and develop itself on all sides, is one of the finest pictures of symmetry and proportion that the eye can anywhere meet with? The tree may be young, or it may be old, but if left to nature, it is sure to grow into some form that courts the eye and satisfies it. It may branch out boldly and grandly, like the Oak; its top may be broad and stately, like the Chestnut; or drooping and elegant, like the Elm; or delicate and airy, like the Birch, but it is sure to grow into the type-form—either beautiful or picturesque—that nature stamped upon its species, and which is the highest beauty that such a tree can possess. It is true, that nature plants some trees, like the Fir and Pine, in the fissures of the rock, and on the edge of the precipice; that she twists their boughs and gnarls their stems, by storms and tempests—thereby adding to their picturesque power in sublime and grand scenery; but as a general truth, it may be clearly stated that the beautiful in a tree of any kind, is never so fully developed as when, in a genial soil and climate, it stands quite alone, stretching its boughs upward freely to the sky and outward to the breeze, and even downward toward the earth—almost touching it with their graceful sweep,

till only a glimpse of the fine trunk is had at its spreading base, and the whole top is one great globe of floating, waving, drooping or sturdy luxuriance, giving one as perfect an idea of symmetry and proportion as can be found short of the Grecian Apollo itself.

We have taken the pains to present this *beau idéal* of a fine ornamental tree to our readers, in order to contrast it with another picture, *not* from nature—but by the hands of quite another master.

This master is the man whose passion it is to prune trees. To his mind there is nothing comparable to the satisfaction of trimming a tree. A tree in a state of nature is a no more respectable object than an untamed savage. It is running to waste with leaves and branches, and has none of the look of civilization about it. Only let him use a saw for a short time, upon any young specimen just growing into adolescence, and throwing out its delicate branches like a fine fall of drapery, to conceal its naked trunk, and you shall see how he will improve its appearance. Yes, he will trim up those branches till there is a tall, naked stem, higher than his head. That shows that the tree has been taken care of—has been trimmed—*ergo*, trained and educated into a look of respectability. This is the highest point—the fundamental law of sylvan beauty in his mind—a bare pole with a top of foliage at the end of it. If he cannot do this, he may content himself with thinning out the branches to let in the light, or clipping them at the ends to send the head upwards, or cutting out the leader to make it spread laterally. But though the trees formed by these latter modes of pruning, are well enough, they never reach that exalted standard, which has for its true type a pole as bare as a ship's mast, with only a flying studding-sail of green boughs at the end of it.*

We suppose this very common pleasure—for it must be a pleasure—which so many persons find in trimming up ornamental trees, is based on a feeling that trees, growing quite in the natural way, must be capable of some amelioration by art; and as pruning is usually acknowledged to be useful in developing certain points in a fruit tree, a like good purpose will be reached by the use of the knife upon an ornamental tree. But the comparison does not hold good—since the objects aimed at are essentially different. Pruning—at least all useful pruning—as applied to fruit trees, is applied for the purpose of adding to, diminishing, or otherwise regulating the

fruitfulness of the tree; and this, in many cases, is effected at the acknowledged diminution of the growth, luxuriance and beauty of the tree so far as spread of branches and prodigality of foliage go. But even here, the pruner who prunes only for the sake of using the knife, (like heartless young surgeons in hospitals) not unfrequently goes too far, injures the perfect maturity of the crop, and hastens the decline of the tree, by depriving it of the fair proportions which nature has established between the leaf and the fruit.

But for the most part, we imagine that the practice we complain of, is a want of perception of what is truly beautiful in an ornamental tree. It seems to us indisputable, that no one who has any perception of the beautiful in nature, could ever doubt for a moment, that a single Elm or Oak, such as we may find in the valley of the Connecticut or the Genesee, which has never been touched by the knife, is the most perfect standard of sylvan grace, symmetry, dignity, and finely balanced proportions, that it is possible to conceive. One would no more wish to touch it with saw or ax, (unless to remove some branch that had fallen into decay) than to give a nicer curve to the rainbow, or add freshness to the dew-drop. If any of our readers, who still stand by the pruning-knife, will only give themselves up to the study of such trees as these—trees that have the most completely developed forms that nature stamps upon the species, they are certain to arrive at the same conclusions. For the beautiful in nature, though not alike visible to every man, never fails to dawn, sooner or later, upon all who seek her in the right spirit.

And in art, too—no great master of landscape, no CLAUDE, or POUSSIN, or TURNER, paints mutilated trees; but trees of grand and majestic heads, full of health and majesty, or grandly stamped with the wild irregularity of nature in her sterner types. The few Dutch and French artists who are the exceptions to this, and have copied those emblems of pruned deformity—the pollard trees that figure in the landscapes of the Low Countries—have given local truthfulness to their landscapes, at the expense of everything like sylvan loveliness. A pollard willow should be the very type and model of beauty in the eye of the champion of the pruning saw. Its finest parallels in the art of mending nature's proportions for the sake of beauty, are in the flattened heads of a certain tribe of Indians, and the deformed feet of Chinese women. What nature has especially shaped for a delight to the eye, and a fine suggestion to the spiritual sense, as a beautiful tree, or the human form divine, man should not lightly undertake to remodel or clip of its fair proportions.

* Some of our readers may not be aware that to cut off the side branches on a young trunk, actually lessens the growth in diameter of that trunk at once.

A FEW USEFUL FLOWERS ILLUSTRATED.

In the last number we described a few of the most useful and popular Hardy Bulbs and flowers, illustrated by colored representations, in a way to give a pretty good idea of the character of the flowers. This subject we now continue:

NARCISSUS.

The Narcissus family is a very large one, containing many members. The pretty *Jonquil* is the smallest and sweetest, while the old *Garden Daffodil* is quite its opposite, being the largest and boldest, and certainly having no claim to anything like a pleasant perfume. The Narcissus are mostly hardy garden plants, though some, which are rather tender for the North, make excellent house plants. The name is from the youth Narcissus who, the poets say, was changed to this flower.

There are half a dozen or more varieties known by the general name of *Single Narcissus*, three of which are shown in the colored plate, and they are all hardy border flowers. The Poet's Narcissus (*Narcissus poeticus*) sometimes called Pheasant's Eye, is snowy white, the cup cream color, with a delicate edge of red, which gives its latter name. The *Gold and Silver Trumpet* and *Hoop Petticoat*, are fine varieties, the form of the two first is represented in the colored plate, while the little *Jonquil* is shown of almost the natural size.

The *Double* varieties are almost as numerous as the single and quite as beautiful. Our colored plate shows *Albo pleno odorata*, white and fragrant, and one of the best of the double yellow.

The most beautiful class of the Narcissus family, however, is the *Polyanthus Narcissus*. The flowers are produced in clusters or trusses of from half a dozen, as shown in our colored plate, to three times this number. Like the others, they show every shade of color, from the purest imaginable white to deep orange. The *Polyanthus Narcissus* is not quite hardy in this climate, unless planted in a sandy soil, and well covered before winter, and then often fails; farther South it does well. For flowering in pots in the house the *Polyanthus Narcissus* is unsurpassed, and nothing can be more satisfactory for this purpose. The *Jonquils* are also desirable for winter-flowering. Three or four may be grown in a small pot. Try them in the house this winter; you will find nothing sweeter. The *Polyanthus Narcissus* will also flower well in glasses of water, like the *Hyacinth*, and it is desirable to grow a few in this way, yet nothing looks so natural and nice as a good healthy plant in a neat pot of earth, and no other

method leaves the bulb in a sound, healthy condition for the next season. The *Polyanthus Narcissus* succeeds admirably in gardens where winters are not severe.

SCILLA.

The *Scilla* is one of the hardiest, brightest and sweetest of the early spring flowers, coming into bloom soon after, and quite often with the *Crocuses*. There are several varieties, but the hardiest, and one of the best, is the little *Scilla Siberica*, which is of a brilliant blue. The bulbs are very small, as also is the plant, and the *Scillas* are the most effective when planted in little clumps. There are several good varieties, and the best in addition to the one above mentioned are *S. campanulata* and *S. hyacinthoides alba* and *cerulea* and *rosea*.



CROWN IMPERIAL.

Early in the spring, before the frost is fairly out of the ground, the strong flower stem of *Crown Imperial* begins to appear, and gradually it ascends, the most brilliant green of the garden, the true herald of spring, upward and upward, until it stands erect full three feet in height, its glossy emerald leaves waving in the breeze, and often bending beneath the untimely snow. Nearly at the top of this column appears the flowery crown of bell-shaped flowers, and above these a tuft of leaves, all forming a pretty crown from which its name is derived. Although the *Crown Imperial* is so pretty in early spring, its fragrance is not at all desirable. The flower-stem, when removed, leaves an open space in the center of the bulb, which sometimes causes those inexperienced to consider the bulb injured. There are several varieties, differing mainly in the color of the flowers, as yellow, scarlet, red, orange, etc. The bulbs should be planted four or five inches deep and a foot apart. They will not usually flower the first year after planting. This is one of those hardy and useful plants about which there is no mystery or difficulty. Once put in the ground, and having obtained a fair start, it will continue to grow and increase from year to year, until the children become men and women, and often decorate the graves of those who first planted them, scores of years before. A change once in three or four years, however, is desirable.

ANEMONE.

The Anemones are beautiful flowers, both the single and double varieties, but the single is the most brilliant. The Anemone has been considered too tender to bear northern winters, but the bulbs can be kept until spring, and, if planted



very early, will flower well, and in a very short time after planting, and may succeed in a good, dry soil with fall planting, even very far north, where the soil is dry and sandy. The roots look as though they were entirely dried up

and useless, in fact, like a piece of ginger root. The flowering time is about with, or soon after, the Hyacinth, and new flowers continue to start from the roots for a long time. When flowering is over and the leaves begin to turn yellow the roots may be taken up, dried in the shade and packed away for future use.

RANUNCULUS.

The Ranunculus is not thought to be hardy in a northern climate, and yet it grows splendidly in Holland, where the winters are far from mild, and where we have seen acres, and gathered many a fine bouquet that would have astonished our friends at home. could we have shipped one



under the sea by telegraph. With a dry soil and perfect drainage tolerable success may be obtained al-



most anywhere. This, however, is one of those beautiful flowers that will never become common in America, because of its somewhat difficult culture, but which a few will always have, because willing to pay the price. For house culture the Ranunculus is very desirable. The bulbs are very curious, tooth-like, and may be kept out of the ground almost any length of time, and will then grow as well as when freshly taken up. They can, therefore, be kept until the spring, and if then planted early, in a pretty cool place, like the north side of a fence or hedge, the result will be usually quite satisfactory. Our fierce summer suns are not favorable to the full development of this flower, as it de-

lights in a cool, moist atmosphere. This fact should be remembered in house culture. No success may be looked for in a hot, dry room.

THE IRIS.

The Iris, or Flowering Flag, as it is commonly named, the *Fleur de lis* of the French, is a well known family of hardy border flowers. Its members are found in all quarters of the world, inhabiting swamps and moist places, and were introduced into our gardens hundreds of years ago, where they have been both improved and multiplied. The *Pavonia* is a pretty little flower, but, while nice for the house, is not hardy. The plants are dwarf. The *Anglica* is, perhaps, the best class for garden work, though the *Hispanica* is also prized. The *Persian* class are dwarf, fragrant and excellent. *I. tuberosa* is very rich, velvety-purple, marked with black. *Susiana major* is the largest and boldest of the family, of a rose tint, marked with brown.



SMILAX.

Smilax is an exceedingly graceful vine, with glossy, green-ribbed leaves, and is now more extensively used than any other plant for decorating parlors, the hair, and for trimming dresses. With a little care it can be grown successfully as a house-plant. The vine does not require the full sun, but will grow well in a partially shaded situation. It can be trained on a small thread across the window or around the pictures. Grown from both seeds and bulbs. Pot the bulbs as soon as received, watering but little until you see signs of growth. They grow very rapidly, and should always have strings to twine on. Give plenty of fresh air, but be careful and not let a direct draft of cold air blow upon the vines, as they are very tender when young. Give them a warm place, and they will amply repay all care. When growth is complete the foliage will turn yellow. Then gradually withhold water, and allow the bulbs to dry. They then can be put away in some dry, cool place. After they have been in this dormant state six or eight weeks they will begin to show signs of life, and then are ready for another season's growth. Our colored plate shows the color and form of leaf, flower and fruit, though its greatest beauty is its foliage.



AMPELOPSIS VEITCHII.

We can well remember when, to find Climbing Plants gracefully adorning porch or house, we might travel in vain for days. They were only seen in the pastures, or woods, embracing stumps, or trees, or adorning some broken-down rail fence. Now, in the suburbs of our cities, in whatever direction we look, the *Ampelopsis*, the English Ivy, the Clematis, and the Honeysuckle are observed, climbing over houses, and porches, and arbors, concealing all deformities, and giving grace to the stiffened outlines.

In several numbers of the *MAGAZINE* we have called attention to the characteristics and value of this class of plants, and in the September number published an article from Mr. CONOVER, of Geneva, N. Y., describing a very fine plant of *Ampelopsis Veitchii* covering the entire front of his house, and which is, perhaps, the finest plant in America, certainly the largest in this section. It has become famous, and very many people have visited the village of Geneva for the sole purpose of seeing this charming vine. We thought it well, therefore, to give our friends a view of this celebrated Climber, and for this purpose Mr. CONOVER very kindly furnished us with a photograph, from which our engraving was made.

It has been thought that the *A. Veitchii* was too tender for a northern climate, and it receives, generally, some injury the first winter, but

afterwards is quite hardy, at least, sufficiently so for all practical purposes, as only the tender tops are injured, and they only occasionally. The foliage of this species of *Ampelopsis* is much smaller than that of *A. quinquefolia*, and the growth is less rapid. It also has the habit of clinging closely to any wall by its numerous little rootlets, without any kind of aid, while our native sort does not always attach itself well to objects upon which it clings for support. There is a strange difference in plants in this respect, some refusing to adhere to a building without the aid of wires or something of the kind, while others seem to cling to stone or brick almost as tenaciously as the old English Ivy. Only recently has our attention been called to this difference, and, perhaps, the cases are very few where the *Ampelopsis* refuses to cling to walls or trees for support, and we have thought that the varieties exhibiting this peculiarity were seedlings from the nurseries, as in their native state they seem to fasten to any tree, or stump, or old building that happens to be within their reach. However this may be, it is certain that *A. Veitchii* will adhere to anything without the least difficulty, and forms a neat and perfect mass of foliage, as may be seen by the engraving. It also exhibits the same beautiful autumn foliage which renders our native species such a marked object in the woods and fields all through the autumn months. It is a native of Japan.



FROM ENGLAND.

MY DEAR SIR:—I have been wanting to send you a few notes for the MAGAZINE, but my time has been fully occupied. I have moved around considerably since my arrival, and made some “mems.” of things I noticed, which seemed worthy of mention. Your articles on Climbers are very interesting, and I have been prompted to notice particularly the Climbers used here. I find the “rare old Ivy green,” even more luxuriant in growth than you claim. One old residence here, which I should think is sixty feet high and forty feet in extent on one side, and twenty-five on another, is entirely covered in Ivy. The growth of wood is wonderful, and it is a perfect mass—as thick as wicker work in a basket—and adheres to the wall as though it had its roots in the brick. The foliage is very heavy and of nice, clear color, without any gaps whatever. Many other places I noticed, densely covered, and some leaves I measured were over five and a half inches in diameter. In a park here, enclosed from the road by one of those high, stone walls you have sometimes alluded to, I noticed Ivy running along the ground, on the grass, under a deep shade, for many, many yards, and of immense growth.

Virginia Creeper is extensively used, and attains a wonderful growth. The next door neighbor to my father has one, about three years old, trained all over the back of his house, to the roof; it is done with wonderful precision, by taking the shoots and nailing them to the wall with strips of leather. The shoots are about the width of a brick apart, and are trained parallel with the mortar line. In the center of this vine is a Clematis, flower same color as *Jackmanii*, but smaller, and all through the Ampelopsis these Clematis blooms are thick. Whilst I do not think the plan a good one of running two such vines one into the other, it, nevertheless, looks pretty. On another house I noticed a white Rose tree covering one end completely, at the other end a fine Jasmine, in full bloom, and in the middle a Clematis *Jackmanii*. All these were in bloom, and they looked rich, I

assure you. On the south side of a house near by there is a Jasmine, eighteen years old, and covering a space of fully thirty feet in length, and the same in height. The Clematis and Jasmine are grown much more than in Rochester, a fact, I suppose, accounted for by the difference of climate.

I have been through some of the country villages and taken some notes. In the windows of a row of six small houses, in one place I visited, there were double purple and *double blotched* and *striped Petunias*, of large size and profuse bloom; Calceolarias in great abundance, of splendid growth and bloom, and in almost endless variety; Geraniums, too, were conspicuous—nice, thrifty plants, and free blooming. One especially, I noticed, white, with salmon eye, an exact copy of your *Mrs. Vick*. Calceolarias seem to grow here as easily and abundantly as Verbenas or Phlox do with you. They are used largely for border plants, and, mingled with dwarf Feverfews, Pansies, and dwarf Geraniums, they have a very pretty effect.

I went to a Flower Show the other week, at a place called Quarndon, a beautiful little village, situated on a hill, overlooking a magnificent country. The show was held in a tent in a field, and was largely attended. The center tables were filled with plants, loaned by several “Lords” and “Squires,” and were of a high order—I mean the plants. The side tables held the articles for competition. Dracænas, Caladiums, and some luxurious tropical plants, were interspersed with Coleus, Ferns of all descriptions, Fuchsias, Abutilons, Balsams, Cockscombs, etc. The variety of foliage Caladiums pleased me as much as anything—one, *C. Belleynei*, had leaves eight inches long and very beautiful; *C. De Picta*, white spotted, was over five feet high, and *C. Chantini*, dark green leaves, full of white spots and rich, colored veins, the leaves were sixteen inches long and ten inches wide. There were some exceedingly fine samples of Dracænas, from four to five feet high. Coleus, Albert Victor, very large, like a shrub, and *C. Telfordii* was a perfect beauty. An Abutilon

Thompsonii, on balloon frame, entirely covered, and five feet high, was full of bloom. Cocks-combs measured from six to seven inches in diameter, and very deep scarlet; and one double blotched and striped Petunia was a marvel of beauty, with between two and three dozen large flowers.

I have spoken to several florists here of the strain of white Pansy you have, and they would scarce credit that the Pansy was white without a colored eye.

Oh! what Roses they do grow here. I had a few given me by a grower, and all of them were from three to five inches in diameter, and not full blown; one was very curious (Dr. Andrew), two perfect flowers in one calyx—a complete twin. It may be nothing uncommon to you, but to me it had particular charms.

But I must close. I will try and gather items as I can which I think of sufficient interest for your beautiful MAGAZINE. Will send a root or two of real English London Pride. Have seen both London Pride and Lychnis in the same garden, which goes as further proof of the truth of your statement, Lychnis is not London Pride, as some Americans claim.—J. H., *Derby*.

LOVE OF FLOWERS IN NORWAY.

The Rev. H. McMILLAN gives us a very interesting description of the universal love of flowers in Norway, and endeavors to philosophise on the reason why:—"The houses, which are all built of wood, are very clean-looking, and neatly painted in pale colors, of pink, yellow and green, which are frequently renewed. Many of them are surrounded by gardens and orchards, or embosomed among clumps of white-stemmed Birches and purple Lilacs. In every window of every house, even the poorest, are pots of the most brilliant flowers—Roses, Calceolarias, Verbenas, Geraniums, Petunias, and many other plants which one would not expect to see in such a latitude. They are most carefully and skillfully tended; and even in a Duke's conservatory such perfectly-formed and gorgeous blossoms are rare. The love of flowers is quite a passion with the Norwegians. Go where you will—in the large towns and villages, and in the loneliest parts of the country—you will find the windows of the houses filled with the choicest plants, even the humblest making an effort to grow something green and brightly-colored that may remind them of a world of beauty beyond their own bleak hills.

A philosopher like him who made out murder to be one of the fine arts, who is fond of tracing the final causes of human phenomena, might find the reason of this universal floral mania an interesting subject of speculation. It may be

caused by the love of contrast; the eye seeking relief in the bright colors of Roses, Geraniums and Calceolarias from the extreme monotony of the green pine-forests and dark brown fields. At any rate, the red and other gay colors of the dwelling-houses, and the Oriental brilliancy of the costumes of the people, may fairly be attributed to this cause.

Another custom common in Norway is strewing the floors of the houses and churches with aromatic foliage-laden branches of Fir, Birch, Dutch Myrtle and Lime, whose fragrance on a hot summer day is peculiarly pleasant and refreshing. The custom is not only beautiful in itself, bringing into the man's home the brightness and infinite suggestiveness of the forest, the free, pure life of nature, but it is also healthful; for the odors of the fresh foliage must go far to neutralize the noxious exhalations of human economy."

HONOR TO WHOM HONOR IS DUE.

I would like to make a motion to vote Dr. GARNER a return of thanks for his articles on Lilies in the MAGAZINE. I think if all your readers who have been benefited by them would write and tell you so, Uncle Sam would find his hands full for a while attending to the correspondence. For myself, I have not only learned a great deal about Lilies, but I have been highly entertained as well. The doctor's style is so fresh and original it gives a great zest to all he writes, and one cannot help thinking his sick people will be all the better for his lingering among the lovely Lily folk. He cannot "consider the Lilies" without insensibly absorbing some of their "sweetness and light." Now, you needn't smile. Why shouldn't we get up a "mutual admiration society" in the MAGAZINE and have a good time all the year around? If our seeds don't come up, or if they do come up and don't grow all right, we think nothing of sitting down and giving a good scolding; now, why shall we not praise as well as scold, if we feel like it?

While I am about it, I must say how much I admire your good temper. Perhaps I am all the more sensible of your amiability because I am what folks call a "pepper pod" myself, and I do think some of your customers are "awful sassy," and Satirica and I often say, if we were you, wouldn't we take them down a button-hole or two!

We have wanted to tell you how much we like the MAGAZINE, but as everybody is doing that we thought you would be tired of the old song; but yet, as Satirica says, "Does a mother ever tire of listening to the praises of her baby?" We like the MAGAZINE for several reasons;

one is, that it is devoted exclusively to "the green things growing," and kindred subjects—it is not a clothes-press nor a cook-shop. Then, it is so practical, and tells us just what we want to know, and so plainly and pleasantly that even a child can comprehend. And last, but not least, it is so beautiful in every respect, and I do think that you are doing a good work in putting so excellent and beautiful a MAGAZINE into the hands of the people at a merely nominal price.

And while we are rendering "honor to whom honor is due," we may as well give CHARLES DICKENS credit for "The Ivy Green," which appeared in the June MAGAZINE. And, by-the-way, the stanzas are misplaced—the last is given as the second, and *vice versa*. This poem, one of the few that CHARLES DICKENS wrote, is to be found in "Pickwick." The same book contains a "Christmas Carol" that I take the liberty of suggesting for our Christmas MAGAZINE, for, strange as it may appear, there are people who have never set eyes on "Pickwick."—JENNY DARE.

STORING PLANTS FOR WINTER.

I wonder if anybody writes to you when they are in trouble—with their plants! I've been thinking I must, and may be you would put the answer in your MAGAZINE. Well, it is my Roses—my pets. I love them the best, but I find that, like all best things, there is work in keeping them the best. I can pick the green lice off, and wash the spiders off, but these dreadful scale bugs! what can I do with them? I find no way to get them off but to scrape them off with my pen-knife, and I am afraid I shall injure the bark in this way. Alcohol will not kill them; would it do to use whale oil soap? They are Tea and Bourbon Roses,—just the loveliest shades of pale pink, canary and flesh color!

And some time before fall, or cold weather, could you give us an article on the care of plants to put in the cellar through the winter? I know of several beside myself who would be very much gratified for your advice on this subject. We want to know what kinds will live in the cellar, whether to keep them in moderate light or darkness, moist or dry; if they should be pruned back, if Geraniums had better be hung up or put away in pots, and how to manage them when we bring them up. I'm afraid I'm asking a good deal, but I want to know about them very much.

I wan't to tell you about my Whitlavias—the dear, sweet, little, blue things. One came by accident in a paper of seeds which my mother bought a few years ago. I was out of health

that summer, and at home most of the time. I can't tell you the comfort that little plant was to me; there seemed a holy association about it, like the Pansy. Do you know its native place? I think it must have come from Palestine; I am sure it has a history. This year mother and I bought some seed and divided, and now I have a nice little bed of them, and they seem glad to be here.

My white Stock is purity itself, and my black Pansies are full of serious thoughts,—have'n't smiled once since they came. My Carnations are blossoming this year, and they are wonderfully beautiful—no two alike. I must tell you how I hurt the feelings of sweet Mignonette, years ago, and the dear thing wont get over it. I had heard and read much about it, and at last mother sent for some seed, we watched and tended it as it grew, and at last it blossomed. I had hoped great things of it. Well, you know the blossom is not pretty, and when it came out I could'n't help feeling disappointed; I said right over the bed that "it was a homely little plant, and not sweet enough to make such an ado about," and it has remembered it to this day, and never gives out its perfume to me. I'm real sorry, for I have since learned that beauty does not always go with worth. But I must not write another word, for I know long letters must be a bother to you.—MRS. D. M. C., *Newport, N. H.*

At present we have merely space to say that only the more vigorous plants will endure *storage* in the winter, as that is about what they get in an ordinary cellar. Plants thus kept should have as much light as possible, and receive only water enough to save them from perishing. The Oleander, Geranium, and such plants will endure this treatment. The cellar should be cool, just above the freezing point. The pruning is best done in the spring. Geraniums kept in this way will make large plants, but are not as handsome as young plants from cuttings. The Whitlavia, like so many of our pretty annuals, is a native of California.

THE MAURANDYA.

MR. VICK:—Wishing to ask a few questions concerning plants, I take this occasion (for the benefit of some of your readers, it may be,) to express my surprise at what you say in the July number, of the Maurandya. Instead of finding it "almost too delicate for out door culture," there is no vine that serves me better in the open ground, where it grows with a luxuriance and blooms with a profuseness of which one who had only seen it cultivated in a sitting-room would not conceive it capable. Last season I had a plant, grown in a small hanging pot during the winter, and cut down to the root when put into my flower garden, which thickly covered a trellis five feet high and one and one-half feet wide. I think it must have been

nearly a foot thick at the top, and don't know but it would have covered twice the space, had the trellis been sufficiently large, as for many weeks I constantly trimmed it to keep it in shape. While it bears the hottest sun from morning until night, it also endures a considerable degree of frost. Lastly, I found in my garden, last spring, a plant which had sprung up from seed scattered a year ago. All this in south-eastern Massachusetts. The white variety I find less satisfactory than the purple, though it is extremely pretty.

Should roots of *Clematis Jackmanii* be set out in the spring or fall, and can you give me the names of the white and blue varieties which bear a peculiar seed-vessel, resembling a *skeleton ball* of considerable size? Two years ago I purchased a *Viticella* described in a certain Catalogue as blue, but it proved to be a dingy purple, not worth cultivating for its flower. Shall I purchase Tuberous-rooted *Begonia* in the fall, or early spring? Will you tell me something of the culture of *Tecoma Jasminoides*, both out of doors and in the house? I hope you may find room in the September number for a reply, as I wish to set out roots, if you deem it advisable.—J. B. W., *Duxbury, Mass.*

Spring is the best time for planting the *Clematis*, and all other plants that are not entirely hardy. A good many plants can endure our most severe winters, after they become established, that would suffer the first winter, if planted in the autumn. The *Maurandya* does well in the open ground if not too much exposed to strong winds, and the truth is that we have seen it so fine the past year or two, that we are almost prepared to recommend it for every place, as a most elegant summer climber. A good many varieties of *Clematis* have this *skeleton ball*, which we illustrated in the September number on page 278. The *Tecoma Jasminoides* is not hardy at the north. It can be either placed in a greenhouse in winter, or put in a cellar and kept dormant, about as tender *Roses* are treated.

THE FUCHSIA FOR BASKETS.

MR. VICK:—Seeing, a few years ago, a suggestion in your catalogue in regard to making a basket plant of the *Fuchsia*, I resolved to try it. A year ago in June a slip of common *Fuchsia* was stuck in a rustic hanging-basket, the room for earth in the wooden bowl being nine inches across and four inches deep. As soon as the slip started to grow the top was nipped off and kept cut off to within six inches of the earth. It put off a few drooping shoots that fall, and this spring sent from the base of the plant a number of shoots. They go up eighteen inches and then droop three feet. The height of the foliage is four feet and the width three feet and four inches. It hangs in my office window, where it has plenty of light, air, and liquid manure. I have for drooping plants *Othonna* and *Maurandya*.—C. H. G., *Bath, Me.*

SPORTS OF FLOWERS.

MR. EDITOR:—In the July number of your MONTHLY is an illustration of a *Rose* with the stem prolonged through it, and you account for it by saying that “a flower, in a certain sense, may be said to be composed of leaves modified in their structure.” Can you explain upon what this abnormal bloom depends, and if it may be controlled? I have seen the white *Nuremburg Moss Rose* with a second bud projecting from the center of a perfect bloom. I have also noticed this in the *Stramonium* and in the *Mimulus*. This spring I noticed in the garden of a friend, that all the *Tulips* of one sort had this peculiarity—a second bloom growing from the center of the first. It added much to the appearance of the flower, and prolonged the blooming. I have often seen the leaves of the *Tulip*, near the flower, as if they had slipped out of the bloom—half leaf and half petal—as though Nature hesitated whether it should be petal or leaf. This *Tulip* within a *Tulip* is to me a rarity.—S. J. L., *Montreal, Queb.*

KEROSENE FOR THE GREEN FLY.—A lady in Greenville, Mich., writes: “I want to thank you for the MAGAZINE. I was not expecting it, but I appreciate the kindness. The Bulb Catalogue I enjoy, and I return thanks for it. I shall make some changes in my beds for bulbs, and the Catalogue helps me to secure such plants as will enable me to have bouquets for my dining and sitting rooms. My husband wants the bouquets on the dining-table, as he is at his business all the day.

Somewhere I read that kerosene oil is good for insects on plants. I use one tablespoonfull to a gallon or less of water. I sprinkle with a hand broom. I have used it on trees for those snail-like worms, and on Currant and Gooseberry bushes with great success—our bushes have never looked so well at this season of the year. I have been much-troubled with green flies, brought to me on a plant from a greenhouse. I have used this preparation on *Fuchsias*, *Geraniums*, *Callas*, *Rose bushes*; in fact, everything but *Heliotropes*. It gives a gloss to the foliage and removes all dust effectually.

I read in one MAGAZINE that, to keep *Callas* sunk in water during the resting season would cause them to produce more blossoms. I did so this summer, and my mother *Calla*, which had three very large buds last winter, is now radiant with a large, perfect flower. I fear it will not bloom so well this winter. I had this mother and seven of her offspring, who had three blossoms each, last winter. They are fine *Callas*.”



PAMPAS GRASS.

MR. VICK:—I had no idea of the beauty of the Pampas Grass until I came South to live. I now have in my garden the plumes that stand, I am quite sure, ten feet from the ground, while the leaves make a mound-like mass, certainly six feet in height. I don't know, but I presume that this grass is more natural to warm countries. I have a plant, or, perhaps, a mass of plants, that now have forty of its beautiful spikes. These spikes, however, are not as beautiful as those I have seen at the North, for they are not silvery-white, but a dull, greenish-color, and do not look well when gathered for winter. What makes the difference? I do not know.—Mrs. S. E. L., Texas.

The Pampas Grass, *Gynerium argenteum*, is a native of South America. The common name is given because it grows abundantly on the vast plains of that country, called Pampas. It was brought to this country and

Europe about thirty years ago, and is now prized and cultivated wherever it can be grown successfully. It will not bear severe northern winters, and, perhaps, cannot be grown successfully north of Philadelphia. The best plumes, such as are sold by florists for winter ornaments, and which are really beautiful, are grown in California, and their silvery-whiteness is obtained by bleaching. A few days' exposure to the sun removes all color. In this way all the grasses can be bleached, while those that it is thought best to keep in the natural color must be dried in the shade. The Everlastings, also, should be cured in the shade.

BRUSSELS SPROUTS. — The little cabbage heads that cluster around the stems of Brussels Sprouts are excellent in the autumn for cooking, and make elegant pickles. They are regular miniature cabbage heads. Last fall I had a fine lot, and they remained good on the plants long after frost. This season, I am afraid, they will not be so good, on account of the dry weather.—E. S. T.

BRANCHING HYACINTHS.



FROM DR. GARNER—21 SPIKES.

MR. VICK:—I send you a photograph of a Hyacinth that I bloomed this last spring. It was one bulb, or, rather, a large bulb with three crowns, and I expected to see three spikes, but was astonished to see more than a dozen simultaneously thrown up, and followed in a few days by twenty-one in all. It was a beautiful sight,



FROM J. FISHBACK—9 SPIKES.

for all Hyacinth flowers, yet we must say that a very beautiful object indeed is a Hyacinth which, against all rule and order, throws up half a dozen or more flower-stems, forming a mass of bloom truly gorgeous. A correspondent of Jacksonville, Ill., sent us, some time since, a photograph of a bulb that produced nine very good spikes, and from this we had the accompanying engraving taken.

NOTES AND QUERIES.

One of our neighbors had a very beautiful white Dahlia in her garden, last year, that I used to stop to admire every time I passed. It was almost as round as a ball, very large, and pure white. I said to myself, "Well, I have always thought that I did not like Dahlias very much, but I do like that." This year I missed it, and when I asked Mrs. H. what had become of it she said it had turned *red*. "Dear me! how very strange! I must tell that to Mr. VICK." I said. The other day I met Mrs. H. and she asked me if I had written to Mr. VICK about her Dahlia, and I said, "Not yet, but I am going to," and I have done it, and I am quite as curious as Mrs. H. to know "why this is thus." I think she said she was so indignant at the Dahlia that she dug it up. I do not wonder; I hate turn-coats, myself.

I am much indebted to some friendly sparrows that have helped me in my garden all summer. Indeed, I doubt if we could have any gardens without the birds. I think I enjoy the birds quite, or almost, as much as the flowers.

I wrote you some notes about Pansies in the



and the blooms perfumed the whole house. I also send you a photograph of a bulb, to show how it multiplied in a pot, and I am sure that these two photographs, if given by you in your excellent MAGAZINE, will give much pleasure to most of your readers. I will, before long, send you a short communication that you will, I think, agree with and lay before the cultivators of Hyacinths, as I have tested satisfactorily my statements in it.—JOHN H. GARNER, M. D., Lucknow, Ont.

While it is true that a single strong, clean stem, entirely concealed by flowers, save for an inch or two at the base, and forming a strong truss, is the true model

early summer, and was rather complacent, and congratulated myself on my success. Alas! that fine lot of early plants that were doing so well, and which were going to astonish the neighbors and fill them with envy, are nearly all dead. The hot weather in July did it. Water, shading, soap-suds, soot, could not save them, and they died of sun-stroke, like so many other folks. But, thanks to my late sowings in June, I am not left without Heartsease these sweet September days—the three little beds are filled with quaint little Pansy faces once more.

The Montana Verbena is a good flower. It is so little trouble and can always be depended upon. Mine have been in bloom since early in May, and they have had no special attention. I have two distinct varieties—one dark purple and the other rose-purple. A scarlet and a white variety would make this species invaluable for cutting. It is perennial, and very peculiar in blossoming so long, for most hardy perennials are in flower but for a very brief season. The Tulips, Columbines, Sweet Williams, Pæonies, June Roses and Larkspurs that began life with them, are all dead and gone, while the Verbenas are as fresh and gay as in spring. The only difference is, they do not bloom so profusely late in the season. When they first came out they were a perfect mass of flowers, and looked lovely in the fresh green grass of May and June. My flower-beds are all set in the grass, and the grass gives me a deal more trouble than the flowers. I cannot get it cut often enough, and every spare moment finds me, grass-hook in hand, shaving away at the green sward. But still, I would not spare a single root of it. Even when it gets quite beyond me and blooms and goes to seed, it is still beautiful.

I was much troubled this summer about a piece that I could not find time or opportunity to cut; but every day I sat in the shade looking at it, and I thought how lovely it is! It was in flower and looked like a fairy forest, and so I gave up all thought of cutting it, and made up my mind to enjoy it just as it was, and since that I do not worry about my grass any more. I cut it as often as I can, but if I cannot keep it looking like velvet I admire the long, green blades shining in the sun, and am happy.—E. A. M.

There must be some mistake about that change of color in the Dahlia.

CAULIFLOWER.—It is a good time, now, to inform your readers that, if they have any Cauliflower plants that have not formed the head or curd, in consequence of the hot, dry weather of autumn, they can place them in a cool cellar, or a pit, and good heads will be formed on nearly all.—**BRASSICA.**

VEGETABLE GARDENING.

I was pleased when you asked me to write a series of plain articles on the Vegetable Garden, because I have labored among the vegetables for a great many pleasant days and years, and there are few to say a word in honor of the humble vegetables. All the ladies sing the praises of the Flower Garden, and half of the men, too, especially the young men, and those to whom the good opinion of the ladies is a matter of great importance. A good deal is "put on," perhaps—mere affectation—but the vegetable garden is a real source of health and wealth; no nonsense about it.

The mechanic in the country village, with a very few feet of a vegetable garden, can keep his family supplied with vegetables all summer, and have a pretty nice little store laid up in the cellar, that will last away into the new year, of such things as Cabbages, Potatoes, and, if he is extra smart, a few good stalks of Celery.

Now, then, how much would all this cost? Two dollars worth of seeds and his labor nights and mornings—less than the loafers of the village spend in tossing ball and smashing their fingers—and not a quarter as much labor, nor a hundredth part as much money as the toppers spend in their walks to and tarryings at the corner grocery.

Did you ever notice, Mr. VICK, that those children who are supplied with plenty of vegetables and fruit from their own garden from the beginning of the season, never get sick with the complaints common to the summer. It is those who are deprived of a regular supply, and are, therefore, craving for fruit and vegetables—in fact, starved to it—that gorge themselves occasionally, and suffer, and sometimes die. These views of the importance of the subject I give as merely introductory, and in the next will try and tell how things are done.—**TERRA.**

BRITISH COLUMBIA.—We admire the perseverance and courage shown by the lovers of flowers in localities where success has to be conquered at every step. F. SOUES, of Clinton, British Columbia, wrote on the 16th of September:—"My gardening has been quite satisfactory, though some flowers proved unsuited to the climate. The short summer season away up here in the mountains, three thousand feet above the sea, is at an end already, as we have had a week of frost from midnight to sunrise, and the temperature ranging from the freezing point to eight degrees below. You can imagine it made sad havoc among the plants. Pansies and Phlox are the only things that seem to pay no attention to this cool state of affairs."

HOLLYHOCKS AND PANSIES.

MR. VICK :—Do Hollyhock seeds require a special kind of soil or different treatment from other plants? I have received a number of different kinds of seeds and plants, and have never had any trouble in raising any but the Hollyhock. In my second attempt I have succeeded in starting one this spring. I planted in a hot-bed with, and in the same manner as my annuals, and all with the most satisfactory results except the unfortunate Hollyhock. Any suggestion will be gladly received.

Do Pansies usually grow larger the second year than the season in which they are grown from the seed? I sowed several packages of seed in a hot-bed in the spring of 1877, and



with the most satisfactory results. Last winter I protected them with a few leaves from the lawn, and as early as February I was rewarded with the largest and almost human (for it seemed to me that they could speak,) living messengers of spring. They were a bright velvet, with a mixture of purple, maroon and yellow. The first one measured two inches in diameter and every successive one seemed larger and more beautiful until within a few days, when some unmitigated rogue came along in the night and stole it from the lot it so much adorned and beautified. Imagine the sad heart of my good wife and the little ones on going out in the morning and finding nothing but the vacant spot they once occupied. In your beautiful MAGAZINE I find many valuable hints to the lovers of flowers, also remedies for the grub,

the beetle and the Rose slug, including a very interesting article on "Flower Beggars," but as yet no remedy for Flower thieves. This, however, may not be a common practice, and hence no remedy is demanded. I am glad to say that this has been my first experience, and I trust it may be the last, as the practice, it would seem to me, is too degrading to become general.—W. O. M., *Canton, Ohio.*

MR. VICK :—I do not think you do justice to that beautiful and majestic old flower, the Hollyhock. I send you a photograph of a plant that I grew last summer, or rather, as it appeared last summer, for the seed was sown in July, I think, of 1876. I am not quite sure about the month. In the autumn of that year my new plants—about one dozen came up from the one package of seeds which I sowed—being weak and quite small I was afraid they would not survive the winter; so I placed some boards around them, and over the boards I threw a few corn stalks, as I had nothing else handy. The plants came through the winter without injury, and grew well the next summer, but still did not make very strong plants, I thought, and as I had some old Hollyhocks—for I never get out of them, but sow a few seeds every year or two,—I did not allow many of them to flower in 1877, but as soon as the flower-stems began to show cut them out or pinched them off. The result was that towards autumn there appeared a strong growth of leaves, and in fact the plants seemed to form new crowns or heads, "tiller out," as farmers say about their wheat.

This summer I did nothing but take out a few flower-stems where they were too crowded, and I did have a wonderful production of flowers. I never saw anything like it. The photograph will show something how they looked, but I wish you could have seen the plants in bloom.—AN OLD AMATEUR.

Pansies will usually flower best the second year, if the plants were vigorous in the autumn, so as to pass through the winter without injury. Hollyhock seed usually germinates quite readily, but if sown when the weather is warm and dry the seed-bed must be kept moist and partially shaded. Ten years ago people here thought flowers a lawful prey instead of private property. Respectable people would rush into our gardens and pick flowers by the handfull, and any objection on the part of the owner was evidence of meanness. Now nothing is touched in our gardens. We have abandoned our fences and say, "Walk in, look and enjoy, get all the happiness you can, but act like ladies and gentlemen," and nothing is disturbed. We give an engraving of a fine Hollyhock plant, as near like the photograph as we are apt to get wood engravings.



VEGETATION IN HIGH LATITUDES.

MR. JAMES VICK:—Knowing your great love for the vegetable kingdom, I wish to call your attention to a physiological fact that has passed unobserved, I believe, as I've seen no allusion to it in any of my reading. It is that all seeds grown in the North germinate at least three days in advance of the same variety grown at the South. This is no myth, but my observation for many seasons, for, Diocletian-like, I look after my cabbages.

It is a fact of long-standing that fruits and vegetables from seeds raised North are of quicker maturity when planted in the South. Now, can you give a reason for these singular facts? When leisure affords an opportunity, I would be pleased to hear your suggestions.—JOHN ROBINSON, *Madison Station, Miss.*

The above communication introduces an important subject, and one worthy of careful attention. In the wonderful economy of nature, plants have a strange power of accommodating themselves to the circumstances in which they are placed, so that if the season is short, they mature rapidly; and seeds from plants thus acclimated to a northern climate and a short season, retain this habit only for a season when transplanted to the south. For this reason seeds should be grown as far north as it is possible to ripen them; and all seedsmen should understand this point and be governed accordingly. At some future time we design to present this subject more fully, and will now only introduce some facts gathered from a report of the French Minister of Agriculture, M. TISSERAND, which we recently found translated to our hand in the *New York Sun*. It gives some interesting facts on vegetation in high latitudes:

To appreciate the phenomenal modes of growth exhibited by Norwegian cereals we must bear in mind that even the capital, Christiania, which is not far from the southern extremity of Norway, is on the sixtieth parallel of latitude, or, in other words, no farther from the pole than the most southern point of Greenland. Nevertheless it is found impossible to raise wheat as high as the sixty-fourth degree; that is to say, in the latitude of Hudson's Strait, while oats are grown as far north as the sixty-ninth degree, and barley within the Arctic circle. These broad facts are well known, and commonly ex-

plained by the influence of the Gulf Stream, but it is to more specific features of Scandinavian vegetation that we would direct attention.

The most striking point is the singular precocity of the native grains and the short period required for perfect ripening. Wheat, for instance, sown in the last week of May, is reaped toward the end of August. The native grain, indeed, has been known to mature in seventy-four days, but about 105 are demanded by the varieties imported from southern countries. The gain in the latter case is still considerable, since it is pointed out by M. TISSERAND that in Alsace, where the mean temperature is sensibly higher, wheat needs 181 days for ripening, in the environs of Paris about 139 days, and in Algiers about 142. For barley the average duration of growth at Christiania is ninety days, but seed brought from Alten, on the seventieth parallel of north latitude, and sown in Christiania, has come to maturity in less than eight weeks. Like results attended an experiment made at Vincennes, where ordinary barley exacts 109 days in ripening. Some grain imported from Alten was sown there on the 7th of April and harvested on the 18th of June, showing a gain of thirty-seven days on the French cereal.

Like results have attended experiments carried out at the Botanical Garden of Christiania in the case of corn, oats, beans, peas and meadow grass. In all these instances it was demonstrated that seed brought from the far north furnished varieties of remarkable precocity, which only lost their advance after several generations, when they gradually became acclimatized. The fact, moreover, is recognized in the current practices of Norwegian farmers. To gain some days on the usual date of harvesting is obviously a matter of no small moment in a country where frosts arrive in September and often hinder grain from ripening. Accordingly we find that the cereals of high latitudes, and especially Alten barley, are in great request throughout the Scandinavian peninsula for seed grain. With it crops can be got in twenty or thirty days earlier during the first year; subse-

quently the difference is less, and after three or four years the seed must be renewed. In southern Greenland, likewise, Alten barley is used, no seed-grain being imported from countries situated below the sixty-eighth parallel. The farmers of Iceland, too, sow barley brought from Alten or from the shores of the White sea. Thus it appears that the most northern provinces of Norway are the great purveyors of seed-grain to other cold countries lying in the high latitudes, and this is especially true of the Scandinavian kingdom, where a bad crop in the north is accounted a national calamity.

The rapid development of plants is not the only symptom of special influences and conditions belonging to the Arctic or sub-Arctic climate. It appears that cereals imported from the southern countries of Europe and sown in Norway gain both in size and weight, whereas, Norwegian grain transferred to French or German soil loses its volume and density. In the case of barley brought from Christiania and planted at Breslau, the average weight of the grain fell twenty-five per cent. M. Tisserand found that it was hydrates of carbon which were most conspicuously augmented in the tissues of Norwegian vegetables. It is, therefore, a reduction of carbonic acid through the leaves of plants which seems to be particularly accelerated in high latitudes, and since the process is carried out under the influences of light, it appears reasonable to attribute the extraordinary activity of vegetation in Norway to the persistence of the solar radiation through the long days of summer. It is estimated, indeed, that the sum of heat received at Alten on a given day, when the sun remains twenty hours above the horizon is greater than that radiated over northern Germany within the same term at the same epoch, notwithstanding the greater elevation of the sun in the latter latitude.

Other observations confirm this conclusion. The augmented action of light during a brief period is manifested in the more intense coloring of the vegetation. In proportion as you ascend the coast in Norway you find the grain of a deeper hue. The white, semi-transparent kernels of southern wheat grow opaque and brown; the white varieties of beans become yellow, brown or green. A like tendency to emphasis is remarked in the green tissues of trees, shrubs and vegetables. The tints of flowers, likewise, are more pronounced; some species which are white or a pale buff in our temperate climates, change to scarlet or gold in Norway. Finally, we may note that the aromatic principles of plants are also signally intensified in high latitudes. Celery and the onion, for instance, acquire a savor so much

keener that, according to M. TISSERAND, French cooks coming to Stockholm or Christiania are forced to make a radical change in their employment of those vegetables. The most fragrant cummin seed in the world is produced in the above-named district of Alten, on the edge of the Arctic circle, and the lavender and mint of Drontheim are far richer in essential oils than are the same plants grown in English soil. We may add that Norwegian tobacco is exceptionally strong.

DUTCH BULBS.

In these days, when bulbs are grown by the hundreds of acres and imported into this country by the tens of thousands, a healthier state of things exists than in olden times, when they were simply made the means of gambling transactions on a large scale.

How it was that Holland became the head-centre of bulb-culture we do not know. We do know that there are many places in England where the natural conditions are just as favourable for bulb culture, if not more so, than they are in Holland. We know, too, that in Belgium bulb-culture is very successfully practised by Louis Van Houtte, but Belgium and Holland are physically pretty much the same. On our own shores many years ago the late Mr. Masters grew Hyacinths for market at least equal to average Dutch samples. But the public would not buy them: Dutch bulbs they wanted, and Dutch bulbs they would have, and the Kentish roots could not be grown at a profit, so difficult is it to alter established custom in trade matters. We suppose no one will hesitate to believe that the conditions of success, so far as they depend on climate or soil, may be just as well obtained in Kent or Lincolnshire as on the opposite coast.

Round the pleasant city of Haarlem may be seen in spring the particolored perfume-laden fields, constituting a scene of singular beauty. In order not to weaken the bulbs the flowering spikes are usually cut off before maturation, and so the traveler sees heaps upon heaps of Hyacinths piled up as so much rubbish. We all know of the boy who expected to find London streets paved with gold: many of us have in a measure experienced such an expectation—to be grievously disillusioned in the course of time; but in Holland, at least about Haarlem, it is a literal fact that the rubbish-heaps consist of piles of Hyacinth flowers. Canal boats are weighed down with them, children troop along with handfuls, apronfuls, basketfuls, every window in the place is full of them. It is some matter of surprise that the practical Dutch do not turn these flowers to advantage in the man-

ufacture of perfume. Were the Hyacinth in equal abundance near Nice we imagine the flower-farmers would speedily turn them to account in this way.

But we have told all this before, and need not repeat an old story. Suffice it to say here that the Hyacinths, and also the Tulips, are grown near to the sea, and in light, sandy soil, most copiously enriched with cow-dung. The method of propagation, the raising of new varieties, all these matters have been described and illustrated. The prodigious quantities of the bulbs, the vast warehouses, the comfortable homesteads, and complaisant proprietors, all tell a tale of thriving trade and commercial prosperity, altogether a different state of things from the time when bulb-gambling was the fashion.—*The Gardeners' Chronicle*.

BOUQUET OF POMPONE DAHLIAS.

During these last few years this section of the Dahlia family has become popular; the blooms being small and compact, resembling a Ranunculus more than those of a Dahlia, makes them more serviceable in cut-flower decoration than those of ordinary border Dahlias. I have also found them most effective as a background in mixed borders, or for large beds in shrubbery grounds. At this season the flowers are especially useful in floral decorations of a large character, where delicate or fragile blossoms are not nearly so effective; and the Dahlia, moreover, will last in a perfectly fresh condition for some length of time, even without inserting its stalks in water—a great gain where, as in the case of harvest festivals, school treats, etc., the decorations have to be extemporized without having recourse to the best preservatives. I have found the following varieties all that could be desired, viz.: Angel of Peace, Bessie, Bijou, Crimson Beauty, Fireball, Floribunda, Golden Canary, Glow-worm, Jubilee, Little Bobby, Little Darling, Little Dear, Little Helen, Little Nigger, Little Snowball, Pearl of Lilliputs, Prince of Wales, Pure Love, Sacramento, Sappho, Seraph, Sunshine, Tomtit and Voltaire.—J. GROOM, in *The Garden*.

TUBEROUS-ROOTED BEGONIAS.

Only a few years ago we were in great danger of having the floral beauties of our gardens swamped beneath the masses of variegated Begonias. Begonia Rex created something like a panic in most gardens. I was myself bitten severely with the variegated Begonia mania, and never rested until I had ribboned out about 2,000 plants of Begonia Rex. The result was so discouraging that I have bedded out none since. The French, however, con-

tinue to mass out Begonias in quantities, especially the flowering sections, such as Nitida, Parviflora, Ingrams, etc. The bulbous Begonias, mostly of the Boliviensis and Veitchi sections or families, may also have a brilliant future in the flower garden. Meanwhile, their proper place seems to be in the conservatory, greenhouse, and window-garden. For such positions it is well-nigh impossible to match the bulbous-rooted Begonias for brilliance, grandeur, and grace—three qualities seldom combined in the same plant. The plants are also characterized by great distinctness and freshness of style and character. The difference between the male and female blossoms; the position of the flowers on the extremities and outer sides of the branches; the semi-pendulous habit of most of the latter; and the forms, numbers, size, and colors of their flowers furnish a combination of ornamental qualities of the highest value—*Garden*.

CLUB-ROOT IN CABBAGE.

A great many theories have been promulgated regarding the cause of clubbing in the Cabbage tribe. Some time since, as the disease was very destructive in Russia, M. WORONIN was instructed by that government to undertake an investigation of the cause, and, if possible, ascertain a cure. His report was made before the Natural History Society of St. Petersburg, in which it was shown that the cause of the disease was a parasitic fungus. The practical results which M. WORONIN deduces from his observations are as follows:

The absolute extirpation of the disease appears to be impossible, since any remedy which might be useful is quite as likely to kill the plant as the parasite. The following suggestions are, however, offered with a view to limiting its effects:

1. The principal means of at least alleviating the disease is to burn everything which is likely to propagate it, and as it has been proved that it can be propagated by the spores, our duty in this matter is plain. Old plants thus affected are often allowed to lie about in the spring, but they should be carefully cleared from the ground and immediately burnt.

2. A careful selection of plants from the seed-bed should be made, and none used which are not perfectly clear. It has been usual under such circumstances merely to pinch off the affected rootlets, but this is not sufficient, as the disease may exist in other rootlets, which are apparently free.

3. A well-considered rotation of crops should be adopted. It is suggested that the ground should not be used a second time for Cabbage-worts till after the lapse of two years.



PLEASANT GOSSIP.

QUESTIONS FROM A TOURIST.

MR. VICK:—A few weeks ago I returned from a short summer trip to California—only the northern part. As I had but a few weeks to remain, I only visited the most wonderful places, north, such as the Great Trees, Yosemite, etc. I brought home with me a curious flower that I gathered up high in the mountains. It seems to be an everlasting, as it is almost dry when growing, and when gathered keeps its color almost, or quite, as well as the *Helichrysum*. I found it growing near the Nevada Falls.

When in the Calaveras grove of Big Trees, I found some large cones, nearly a foot long, which I, of course, supposed came from the large trees, and I brought several home; but now I am told that somewhere in some of your works you state that these are not the cones of the California Big Trees, and that they bear but small cones. I shall be disappointed if this is so; but, of course, I desire to know the truth, and send you specimens of both flowers and cones.—TOURIST.

The cone sent is not the cone of the Large Tree of California, *Sequoia gigantea*, but of the Sugar Pine, a very large pine tree, which ex-



udes a sugary gum, not unpleasant to the taste, and is, therefore, called the Sugar Pine. These Pines have very large cones, but the Large

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LILIUM CANDIDUM.

Two years ago this coming spring I purchased among other things one *Lilium candidum*, or common white Lily bulb. It was received at the usual time, I think about the twentieth of April, and in good order, as I supposed. I planted the bulb some six or seven inches deep, in a dry, sunny place in my front yard, but it did not come up till fall, when a bunch of leaves appeared, but no flower-stem. As winter approached I covered three or four inches with leaves, for winter protection, and in the spring, which would be last spring, when the covering was removed the leaves of the Lily were dead. They did not appear again till last fall, when a bunch of leaves came up as before, though perhaps a little larger, with no flower-stem. As cold weather came on I covered with leaves as before, and placed a barrel over the whole for winter protection. The bulb has not been disturbed since it was planted. Will it ever change about and make its appearance in the spring, and do its duty like other good and faithful flowers; or shall I abandon it as unworthy a place in the flower garden, and try again?—M. H. H., *DeWitt, Iowa*.

The white Lily, *L. candidum*, makes its growth of leaves in the autumn, and when the bulbs are strong enough, the flower-stem is produced in the spring. It is quite possible you gave too much covering, and thus destroyed the leaves produced in the autumn, and, as a consequence, weakened the bulb so that it had not strength to flower. Do not cover the leaves, except with a little straw, or a very few dry leaves or evergreen branches, so light as not to prevent the circulation of air. If, next summer, the plant does not appear vigorous, take it up in August and re-plant in another place, but we do not believe this will be necessary.

ufacture of perfume. Were the Hyacinth in equal abundance near Nice we imagine the flower-farmers would speedily turn them to account in this way.

But we have told all this before, and need not repeat an old story. Suffice it to say here that the Hyacinths, and also the Tulips, are grown near to the sea, and in light, sandy soil, most copiously enriched with cow-dung. The method of propagation, the raising of new varieties, all these matters have been described and illustrated. The prodigious quantities of the bulbs, the vast warehouses, the comfortable homesteads, and complaisant proprietors, all tell a tale of thriving trade and commercial prosperity, altogether a different state of things from the time when bulb-gambling was the fashion.—*The Gardeners' Chronicle*.

BOUQUET OF POMPONE DAHLIAS.

During these last few years this section of the Dahlia family has become popular; the blooms being small and compact, resembling a Ranunculus more than those of a Dahlia, makes them more serviceable in cut-flower decoration than those of ordinary border Dahlias. I have also found them most effective as a background in mixed borders, or for large beds in shrubbery grounds. At this season the flowers are especially useful in floral decorations of a large character, where delicate or fragile blossoms are not nearly so effective; and the Dahlia, moreover, will last in a perfectly fresh condition for some length of time, even without inserting its stalks in water—a great gain where, as in the case of harvest festivals, school treats, etc., the decorations have to be extemporized without having recourse to the best preservatives. I have found the following varieties all that could be desired, viz.: Angel of Peace, Bessie, Bijou, Crimson Beauty, Fireball, Floribunda, Golden Canary, Glow-worm, Jubilee, Little Bobby, Little Darling, Little Dear, Little Helen, Little Nigger, Little Snowball, Pearl of Lilliputs, Prince of Wales, Pure Love, Sacramento, Sappho, Seraph, Sunshine, Tomtit and Voltaire.—J. GROOM, in *The Garden*.

TUBEROUS-ROOTED BEGONIAS.

Only a few years ago we were in great danger of having the floral beauties of our gardens swamped beneath the masses of variegated Begonias. Begonia Rex created something like a panic in most gardens. I was myself bitten severely with the variegated Begonia mania, and never rested until I had ribboned out about 2,000 plants of Begonia Rex. The result was so discouraging that I have bedded out none since. The French, however, con-

tinue to mass out Begonias in quantities, especially the flowering sections, such as Nitida, Parviflora, Ingrami, etc. The bulbous Begonias, mostly of the Boliviensis and Veitchi sections or families, may also have a brilliant future in the flower garden. Meanwhile, their proper place seems to be in the conservatory, greenhouse, and window-garden. For such positions it is well-nigh impossible to match the bulbous-rooted Begonias for brilliance, grandeur, and grace—three qualities seldom combined in the same plant. The plants are also characterized by great distinctness and freshness of style and character. The difference between the male and female blossoms; the position of the flowers on the extremities and outer sides of the branches; the semi-pendulous habit of most of the latter; and the forms, numbers, size, and colors of their flowers furnish a combination of ornamental qualities of the highest value—*Garden*.

CLUB-ROOT IN CABBAGE.

A great many theories have been promulgated regarding the cause of clubbing in the Cabbage tribe. Some time since, as the disease was very destructive in Russia, M. WORONIN was instructed by that government to undertake an investigation of the cause, and, if possible, ascertain a cure. His report was made before the Natural History Society of St. Petersburg, in which it was shown that the cause of the disease was a parasitic fungus. The practical results which M. WORONIN deduces from his observations are as follows:

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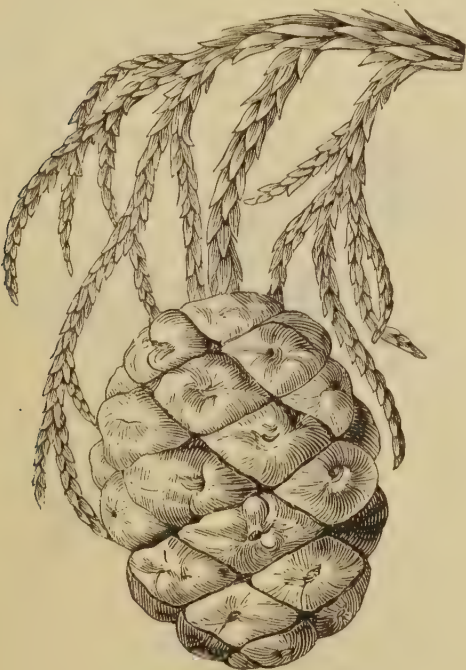
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WINTER GARDENS.

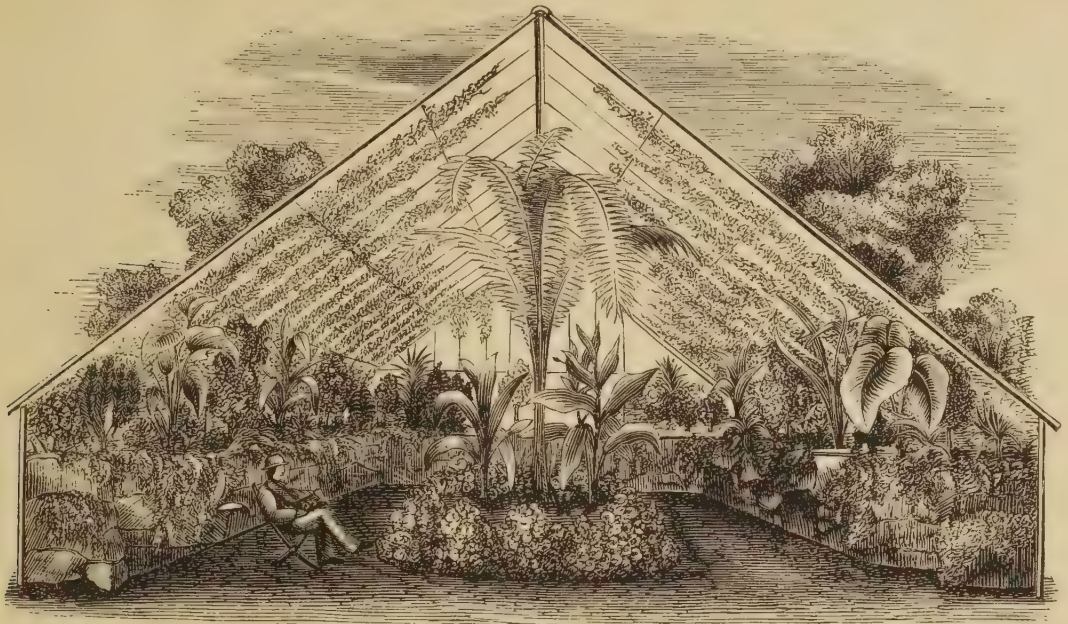
MR. VICK:—I owe you a good deal of thanks for teaching me something that my own good judgment should have taught me long before. I have a conservatory, rather an humble one, but very pleasant, I might say beautiful, perhaps. Well, I formerly filled it with hundreds of small pots and plants, so that the owners, for whose comfort it was made, could hardly squeeze through the narrow passages. I thought this was the way, because others did so, and my gardener, who is a handy man-of-all-work, seemed to think so, too. One of your publications showed me a better way, and I am anxious that others should profit by the information. The plan was to make a kind of summer garden, with a few fine plants and walks and seats—but please tell the people how to do it. I am sure it will be a great benefit to many who are spending a good deal of money for a very little pleasure.—J. M. S.

The article referred to we published, with illustrations, some time ago, and are glad to know its simple suggestions have not been unheeded. We rather dislike to repeat anything of the kind, but, perhaps, to most of the readers of the *MAGAZINE* it will be new, and we hope to all interesting.

"The Winter Garden proper, or Conservatory, is a delightful spot in which to spend an hour occasionally during the cold storms of winter—a little Eden of our own making—a tropical summer brought to our own doors. All

who can afford the expense, we think, should enjoy this luxury. It costs something, to be sure, but the money is not wasted. The making of the building gives employment to those who need it, very likely; the purchase of plants encourages the florist to continue the culture of these beautiful objects. Money spent in luxuries that are elevating and refining is well spent. The florist who grows plants for sale finds that the demand is greatest for small specimens. He, therefore, crowds every possible space with plants, so as to secure as great a return as possible. Amateurs, however, who erect conservatories for pleasure, make a great mistake when they imitate the florist in this respect. Private conservatories are made for pleasure, and should be arranged somewhat in the manner of a garden, with a few large and beautiful plants, and broad walks, where the proprietor and his family can lounge away an hour pleasantly, in a measure free from care.

"What a blessing a rich man would be to a neighborhood, if he were to build such a conservatory as we have described, and say to his neighbors and their children that it was constructed partly for their pleasure, and that, at certain times, say two or three days in a week, all were invited to call and enjoy its pleasures



SMALL WINTER GARDEN.

at their convenience. Something of this kind is by no means uncommon in Europe, and we have often had the pleasure of uniting with the public in visiting the private, yet magnificent, grounds and houses of many gentlemen, both in England and on the Continent. The idea that the people will injure or destroy plants or flowers is entirely fallacious. Tens of thousands of people, on some days, visit the Kensington gardens and conservatories, yet nothing is harmed. Indeed, if we wished to give an object lesson on good manners, we would point to the gardens where the masses of the people congregate. The American people need education on this point. We have given in the engravings something of an idea of what we think an amateur conservatory should be."

GOING TO SEED.

MR. VICK:—I sowed my flower seeds in small beds, which I covered with large hand-glasses at night. After the plants had begun to make some growth, I saw every day, when I went to cover them, that they were growing less and less. But the cause was a mystery. I watched, and found that some very young chickens, which had the run of the garden, were the culprits, but did not discover it until they had picked the radishes close to the ground. For this piece of mischief I put them out of the garden—as our parents were for their mischief—and concluded no taste of radishes for me this summer. But they started again very vigorously, and I began to enjoy, in anticipation, the luxury. When, lo! they seemed bent on making tops instead of bottoms. Up they ran, and spread their branches, which were soon covered with blossoms and an abundant crop of seeds—above a pint, and many wasted. Now, my question: did the checking make the plants think they had passed over a winter and ought to bear seed, or did they do it as a punishment for allowing the chickens to persecute them? Or, is

it a law of nature that a plant thus checked shall, at its second start, produce seeds? If it is such, does it apply to many plants? I would like your opinion upon the matter.—W. F. E., *Knightsville, Me.*

The object of plant life is the production of seed. If a plant is growing vigorously, under favorable circumstances every way, it will not produce seeds very abundantly, perhaps, certainly not very early; while a plant of the very same kind, in a poor place, where it has a hard struggle for existence, and is in danger of destruction at any moment, will make haste to perfect its seed. There are some things that we cannot make produce seed the first season without transplanting. We have a Lettuce that, if sown in a hot-bed in March and allowed to remain in the same place, will grow on until November without seeding; but, if transplanted in May, will usually give some seed about September, but is not always sure to seed unless transplanted twice. In a very dry summer, if you notice a field of carrots, you will find some running up to seed, while, in a wet season, this is not so. To make a tree fruit it is sometimes necessary to severely summer-prune.

Ever-Blooming Tuberose.—I have seen it frequently stated that Tuberose never bloom but once. There is one in our flower-garden which bloomed last year, and in the fall sent out a second stalk, but no bloom. The same bulb was planted this year, and is now in bloom, with fine double flowers, fully equal in every respect to those of last year.—G. W. SANBORN, *Somerville, N. J.*

This is one of the strange things often reported, for which we cannot account. Occasionally the Tuberose has a double crown, and both crowns produce flowers.

TREATMENT OF CELERY.

TAKING UP.—I have a good lot of Celery, and it is now October, and we have a little frost nights. I am afraid I will lose it; and yet it is growing so nicely these cold nights that I do not want to take it up until necessary. How much frost will it bear without injury, and how late can I leave it uncovered without great danger from frost?—J. B. C., *Genesee County, Mich.*

Celery will bear, without injury, ten or twelve degrees of frost, but much more than this—say twenty degrees—will prove its ruin. It can from this be determined how late it will be safe to risk it uncovered in any locality. Here we usually take it up early in November. Do not handle it on wet days, nor when frozen. If the frost has crusted the leaves allow it to remain untouched until thawed out.

STORING.—I have now nearly three hundred heads of Celery, the best I have ever had, and I am anxious to keep it good all the winter, if possible. Last year I stored it in trenches, and it was very nice in the early winter, but began to decay later, and I lost, certainly, more than half of what I desired for late use. Please state what was the trouble.—S. L. G., *Dutchess Co., N. Y.*

You must, we think, have cured too early and too thoroughly. Perhaps we could not do better than to copy a paragraph from *Henderson's Gardening for Profit* on this subject. It proposes a plan very similar to what we have always pursued and recommended to our readers:



"The ground in which Celery is placed for winter use should be as dry as possible, or, if not dry, so arranged that no water will remain in the trench. The trench should be dug as narrow as possible, not more than ten or twelve inches wide, and of the depth exactly of the height of the Celery; that is, if the plant of the Celery be two feet in length, the depth of the drain or trench should be two feet also. The Celery is now placed in the trench, as near perpendicular as possible, so as to fill it up entirely, its green tops being on a level with the top of the trench. The engraving represents a section across a trench filled with Celery in the manner just described. No earth whatever is put to the roots other than what may adhere to them after being dug up. It being closely packed together there is moisture enough always at the bottom of the trench to keep this plant, at the cool

season of the year, from wilting. That which is put in trenches about the 25th of October, is usually ready to be taken up for use about the 1st of December; that a couple of weeks later, by the 1st of January, and the last (which we try always to defer to the 15th or 20th of November) may be used during the winter and until the 1st of April. For the first lot, no covering is required, but that for use during the winter months, must be gradually covered up, from the middle of December, on until the 1st of January, when it will require at least a foot of covering of some light, dry material—hay, straw or leaves—the latter perhaps the best. I have said the covering should be gradual. This is very important, for if the full weight of covering is put on at once, it prevents the passing off of the heat generated by the closely packed mass of Celery, and in consequence it to some extent "heats," and decay takes place. Covered up in this manner, it can be got out with ease during the coldest weather in winter, and with perfect safety. These dates of operations are for the latitude of New York City; the cultivator must use his judgment carefully in this matter, to suit the section in which he is located.

"For market gardeners and others who have large quantities this is the best method of storing; but for smaller growers, either for sale or for private use, quite a quantity may be preserved in any cellar where there is no furnace or other fire heat. When a few hundred roots only are to be stored it can be placed in narrow boxes, say nine inches wide and four to six feet in length, and of a depth a little less than the height of the Celery. A few inches of sand or soil is placed on the bottom, and the Celery is packed in the box upright, the roots being placed on the sand at the bottom; the Celery must be packed in as tight as possible, but without bruising. Boxes thus packed and stood on the cool floor of the cellar, if put away in November, will be "blanched" fit for use during January, February and March. If put in sooner than November it will blanch earlier, and if stored later it will keep later. If large quantities are to be kept in the cellar, the cheapest practicable way to do so is to begin at one side, next the wall, farthest from the entrance, and erect boards across the cellar, nine inches from the wall, and of a height a little less than the length of the Celery—that is, if the Celery is twenty-four inches in length, the boarding may be eighteen or twenty inches high. In this narrow division the Celery is packed in upright, as above described for packing in boxes. As soon as the first tier is filled, erect another board trench, or division, at nine inches distant from the first, and so on until the whole space re-

quired is filled up. It will be understood that no soil or sand is packed between the stalks of Celery, only two or three inches being strewn on the floor, on which the roots are placed. A cellar or root-house so packed, 20 by 20 feet, will hold from 3,000 to 5,000 roots of Celery, according to their size. Care must be taken not to get the board partitions forming the trenches or divisions between the tiers of Celery more than nine or ten inches apart, for if at much greater distance the stems and leaves would be in too large masses and would generate heat and rot. As the cellar or root-house is usually a damp and dark apartment, there will generally be no necessity to water the Celery after it is packed. Every means of ventilation should be used, even in cold weather, for it must always be borne in mind that Celery is a vegetable that will stand quite a severe frost without injury, so if the temperature of the cellar falls five or six degrees below the freezing point, no injury will be done. When Celery or other vegetables are packed away for preservation in cellars or in the open field, it is indispensable that no water be allowed to lodge in the pit or trench; so that in the event of using a cellar or root-house for this purpose, a matter of first importance is thorough drainage, in soils where drainage is necessary."

We have never been as successful with Celery in the cellar as in the trenches. Cellars are usually too warm, and we would not advise the risking of a whole crop in that way. Try a portion only.

Lilium giganteum.—Is the Giganteum Lily, which I see advertised in the foreign papers and catalogues, hardy and good? If so, why do we not know more about it in this country. I have never seen one, and I think you have not mentioned it in the MAGAZINE. —CYRUS B. J.



little engraving of this Lily, showing its appearance when in flower.

A CURIOUS CABBAGE.

I have grown this year a curious and strange Cabbage. I never grew the like before. It is the old sugar-loaf shape, and is the hardiest, healthiest and solidest Cabbage that I have ever seen or grown. The insects, too, don't use it as badly as other kinds. I think, perhaps, it is too hard and solid for them. As some may like to try this I will give its name, *Filderkraut*. It is a late, or winter Cabbage, and, I think, of better flavor than most winter Cabbages, which are generally much stronger and less sweet and tender than the summer Cabbages.



FILDERKRAUT CABBAGE.

What I like is, say a Winningstadt, or even an Early Wakefield, or Wheeler's Imperial, that is grown late and just fit to cut in October and November. Then it should be cooked so as to retain the original form, and served in quarters on the plate unbroken. Such a Cabbage is fit for a King, or Queen, either. The Savoy's are very good, but not until quite late, say until after hard frosts. They will keep in the garden without covering, until Christmas, and grow better every day. People who know only the late, strong Cabbages, don't really know what a good, sweet, tender Cabbage is.—JOHN CAULIFLOWER.

Our correspondent gives the public a curious name, but his real name is quite a good one, well known to the public, and the owner is by no means a Cabbage-head, although he



CURLED SAVOY CABBAGE.

knows a good deal about Cabbages. The statements he gives are very truthful, and show a proper appreciation of a most delicious and nutritious and much-abused vegetable. Many

persons cannot bear the smell of a Cabbage when cooking, nor the taste of a Cabbage, who never once tasted a real good Cabbage, such as our correspondent describes. A poor, coarse, strong Cabbage can only be eaten with vinegar, but a young, tender, sweet Cabbage needs a little delicate drawn butter, or meat gravy.

We like to give engravings of the plants and species spoken of by our correspondents, as it insures the proper understanding of the subject discussed, beyond question. In accordance with this plan we, therefore, give one of the Filderkraut and one of the Curled Savoy Cabbages.

TULIP BULBS.

MR. JAMES VICK:—Two years ago I planted a few Parrot Tulip bulbs, which flowered to my entire satisfaction. A few days since I dug up a few bulbs, desiring to exchange with a friend, and found them badly eaten by a small worm. These worms look very much like wire-worms, but are much smaller, being about three-fourths of an inch long. Some of the bulbs appeared to be sound, but felt soft to the touch. The worms had eaten through the outside layer of the bulb, and had eaten out the second layer and left in its place a fine powder, and in this way had comfortably housed themselves. I have used the same bed for Verbenas both seasons. Some of the bulbs had thrown out a mass of new roots, some of which were an inch long. If you will answer the following inquiries in the next number of your MAGAZINE you will confer a favor on a subscriber.

1st. Have I spoiled the bulbs that had thrown out new roots? They are not planted again yet.

2nd. Would it be better to take up the bulbs as soon as the leaves turn yellow, and before bedding plants are set out?

3d. Can you give me a remedy against the worm?—S. E. W., *Binghamton, N. Y.*

We think that your bed has been rather moist during the summer, and the coarse, rough skin that covers the bulb became somewhat decayed so as to furnish a harbor for the worms; when once located they found pretty good food as well as lodgings, so they remained, and perhaps informed friends of their good quarters. The moisture and the warm weather together encouraged an unnatural growth of roots. This will not seriously injure the bulbs. Keep them dry and plant again early in November.

It is quite as well to take up Tulip bulbs before putting out bedding plants, because then they are out of the way of moles and worms, but sometimes they will not ripen early enough. In such cases take them up and re-set in rows in any dry out-of-the-way spot until the leaves turn quite yellow. Then take up the bulbs, dry them a day or two, then remove the rough skins, stems, and roots, and pack away the clean bulbs in paper bags or drawers. Plant in October or November, and in another place, if possible. It is not well to continue any bulb in the same place a great many years, because insect enemies naturally gather and increase where they find appropriate food.

AUTUMN WORK.

The weather for a month or more up to the present time, October 12, has been unusually pleasant, even for an American Autumn. Scarcely a cloud has veiled the sun, even for an hour, and farmers and seed-growers have had the best possible opportunity for gathering fall crops. Farmers would like a little rain for the benefit of the young wheat, and a good soaking would very much facilitate the taking up of young trees and please the nurserymen. Our friends should improve the fine weather, which we hope yet to have, in putting their gardens in order, for the autumn is a season of comparative leisure, while the spring is one of activity, if not of hurry. The soil, too, is in much better condition for working now than it will be in March or April. All changes in walks and beds can now be made easily and pleasantly, and with half the labor that would be required in the wet, hurrying spring-time.

A good many plants can be obtained from the garden for winter-flowering in the house, such as Petunias, Dianthus, Bleeding Heart, Cobea, etc.; and in selecting plants for this purpose, choose those that look the youngest and most vigorous, and have not flowered freely. Some plants appear to be later than others in maturing, and, therefore, commence to flower later, and these are the best for removing to the house. Ivies, and the Climbers that have done service in ornamenting the porch, may be now made to adorn the parlor windows.

After taking up and potting plants from the open ground, give a good soaking of earth and branches and store them away in a cool, shady place for a week before taking them to the house. Don't introduce plants to a warm, dry room too suddenly.

Those who have tender bulbs, that will not bear the winter in the ground, must now take them up preparatory to their winter's rest. Remove the tops of *Dahlias* and allow them to dry a few days, when they may be stored away in the cellar, like potatoes. If too moist and warm they will start growth too early, just as potatoes sprout, and if too dry, they will shrivel, and this sometimes injures the buds. *Gladioli* keep very easily. Remove the tops and store them in any place away from frost. An upper room will answer. The hardy bulbs, such as Lilies, will be benefited by a light covering of leaves or straw, before severe frosts. It prevents the frequent freezing and thawing we sometimes have, which is far more injurious than steady cold weather. *Pæonies* can bear anything in the shape of hard fare, and unless newly planted, require no protection.

A light covering of some material that will

admit plenty of air, like straw or evergreen boughs, is of great benefit to beds of Pansy, Dianthus, and plants of like character, that are hardy, but occasionally suffer.

Of course beds of hardy bulbs must be made before the ground becomes permanently frozen. A good many people think that florists should keep Hyacinths, Tulips, and bulbs of like character, until spring. This is impossible. They must be planted by about the 1st of January, or they are ruined. Certain kinds, some seasons, may be preserved later, but this is the rule. Always plant bulbs in a dry place. Standing water, either on the surface or at the roots, works great mischief. About the time that winter commences in earnest, and before nature provides its warm, white robe, cover the beds with four or five inches of coarse manure or leaves. This would not be necessary if we could always depend upon the snow. And, having done all, wait in patience and hope for the great spring awakening.

WINTER GREENERIES AT HOME.

The above is the title of a little book written by EDWIN A. JOHNSON, D. D., of Alleghany City, Pa., and published by ORANGE JUDD CO., of New York. It is a series of letters written by the good minister, who, we are quite sure, practices what he preaches, to his nieces, who had "been trying to keep plants in our rooms through the winter, and made rather sorry work of it." We like this little book because it is so plain and practical, and was written by one who was taught in the hard school of experience. Not one in a dozen of the florists appreciate the difficulties with which the amateur has to contend. The following is what he says about flowering bulbs:

"The hardy, or Holland Bulbs—Hyacinths, Narcissus, etc.—are, as you probably know, the common resort for winter bloom when everything else has been given up in despair. They are doubtless the best plants that can be selected for a cool room with windows to the north. Indeed, the beauty of their flowers is more or less impaired by exposure to a high temperature and strong sunshine. As they have a great variety of colors and are so easily accommodated, you will expect from me the 'whats and the hows' of their special treatment.

"Hyacinths may be grown in wet sand, or gravel, or moss, or in water, but much better in pots of earth not less than six inches deep. In a pot eight inches deep and wide, several may be brought together—say three of different colors. The single-flowered varieties are, in some respects, much better than the double. For the soil, take a sandy loam, with one-

third of well-rotted manure. For a succession of flowers through the winter, do the potting with intervals of a week or two, or pot all the bulbs at once and bring them to the light at different times. Set the bulb so as to leave about half of it above the soil when pressed down, and nearly an inch between the surface of the soil and the rim of the pot. After saturating thoroughly with water, take the pots to a dark cellar, or cover them, out-doors, with anything which will, without injuring the buds, effectually exclude light and heat—this being the condition necessary for the process of rooting. If the roots are found in the bottom of the pots at the end of six or eight weeks—the time ordinarily required—the plants are ready to grow upward and may be taken at once to the light. Another month will probably suffice for the appearance of the flowers. As the growth advances, water freely, but not to the extent of soaking. When the flowers fade, cut away the stalks, but let the leaves grow until they turn yellow, when you may allow the bulbs gradually to become entirely dry. Another season they may be forced into bloom the same way, but with less satisfactory results, and they may be better used in the outside garden.

"When two or more bulbs are to be flowered in the same pot, it is important that they come into bloom together. To make sure of this, all the bulbs that are to be used in this manner are sometimes set out in a box of sandy earth, and this box kept in the dark and treated just as directed for pots containing a single bulb. When the bulbs have formed abundant roots, those may be selected that are equally advanced as to bud, and carefully potted.

"Their cultivation in glasses is not to be commended, for the bulbs become quite worthless afterward, and the flowers can hardly be as perfect as by the more natural process; but perhaps you will like to try it for the sake of variety, if not of fashion."

DAHLIAS AND MAILS IN NEW MEXICO.—A subscriber at Santa Fe who has six Dahlia plants, wrote October 3d:—"I never saw such flowers at the East. I really believe I have had on the six plants two hundred flowers at once, and I have counted one hundred to-day." The same gentleman also writes complaining of the mails, which are at the mercy of the contractors, and may go through in seven days or twenty days. Articles may come through good, or be torn to pieces and worthless. Letters come in an uncovered buck-board, and often soaked so as not to be readable. He thinks the Post Office Department should look to the contractors and see that they live up to their contracts.

MONTHLY CARNATIONS.

JAMES VICK:—Please answer in your November MONTHLY if Carnations grown from seed planted in May will bloom in the house this winter?—MRS. B. M. C., Ironton, Ohio.

Last spring I got a paper of mixed Carnation seeds. The plants are now thrifty, and two of them are branching as if they would soon bloom; one looks as if a bud had been nipped out. May I trouble you to tell me if they would bloom if brought into the house? Several plants of Perennial Rocket, from seed sowed in the spring, bloomed last summer and are in bloom now.—M. C., Carrollton, Ill.

A few days since we answered a similar question from a young gardener very briefly,



and it will be found in our Youths' Department. The above inquiries, however, and two others of a similar character received by the same mail, indicates that more information on this subject is needed than we gave in the few lines referred to. There are two classes of Carnations. The common garden Carnations will not flower well in the winter. It is possible to obtain a few flowers, but not enough to pay for the trouble. Of this class there are thousands of varieties. The class of *Perpetual Bloomers* are called *Monthly* and *Tree Carnations*, and *Winter Bloomers*, and there are not more than a dozen good popular varieties in the class; at least, there are a few so superior as to leave the others entirely neglected by florists. If a strong plant of either variety of the *Perpetual Bloomers* is obtained in the autumn it will give a great abundance of flowers during the whole winter;

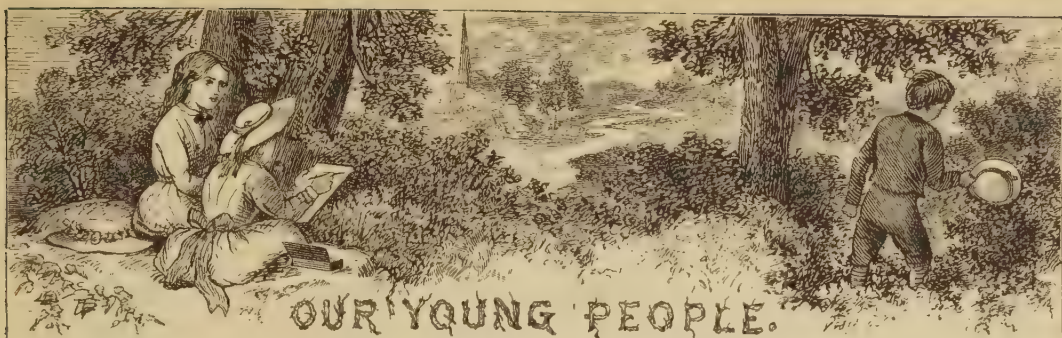
indeed, this class is disposed to flower too much, and should, therefore, receive plenty of nourishment, water, fresh air, and good care every way. The best varieties are *La Purite*, (carmine,) *President de Graw*, (white,) *Vesta*, (white,) *Peerless*, (white, striped with pink,) *Peter Henderson*, (large white.) Plants can be obtained of most florists in the autumn in proper condition for winter flowering, at about three dollars a dozen.

As the Carnations referred to by our correspondents are the hardy garden kind, it would be best to give them some winter protection, like a few evergreen branches, or a little straw. A rough box with the bottom out put around plants that are thought to be a little tender, is a good protection. A little straw could be strewn in. This plan gives air and light.

The engraving shows the general size and form of the *Perpetual Carnations*. It was taken from a flower of *Vesta*, and is, perhaps, a little larger than the average size. It will be seen that the blooms are not as perfect as those in the other class, and this is another evidence that no one flower can monopolise all the good qualities. The flowers of this class of Carnations, however, are of pure colors, of fair form, delightfully fragrant, and are supplied in great abundance. It is difficult to say what florists would do for winter flowers if they were deprived of the white and red Carnations, for they are almost exclusively used as the ground work of all winter floral ornaments. In the spring, if the plants have been well cared for in the house so as not to be

too much exhausted with flowering, they can be removed to the garden, and if the buds are removed and the straggling shoots pinched off, may so far recover as to make good plants, but are not equal to young plants.

NAMES OF FLOWERS.—Those who send us flowers for name, or any other package, have a right to write name and address on the outside of the wrapper. If this is done it will save us a great deal of trouble. Flowers change color after being picked and packed, and when we have to depend on the color alone for the name it is almost impossible to judge with any certainty. We have now before us a *Gladiolus* flower for a name, which we cannot give, because the markings of two kinds are alike and the only difference is in the shade of red, which must have changed by three days confinement.



OUR YOUNG PEOPLE.

BOTANY FOR LITTLE FOLKS.

The Pink is the familiar representative of a natural order of herbaceous plants known as the Pink Family, or the *Caryophyllaceæ*. By reference to the diagram, *fig. 97*, we perceive that the calyx, of which the divisions are five in number, enclose five petals which surround ten stamens. Figure 98 shows the form of one of the petals; the upright or narrow part is called the *claw*, and the broad, spreading, flat part is called the *blade*. The edge of the petal



Fig. 96. Pink, (*Dianthus Caryophyllus*.)

is toothed or notched. The calyx is a sort of tube or cup caused by the sepals being united at their lower parts. Below the calyx, at *fig. 96*, may be observed some little sharp pointed leaves; these are called bracts. Bracts are really leaves growing near the flowers, but because these leaves, growing close by the flowers, take shapes different from the other leaves of the plant, and are often of a very different texture and color, they are given a distinct name. Sometimes they are thin, dry, transparent or opaque, and sometimes colored

like petals and more conspicuous than the flowers,—in *Poinsettia pulcherrima* the bracts form large terminal whorls, sometimes as much as twenty inches in diameter, and their color is the deepest vermillion, glowing like a blaze of flame. In the examination of different kinds of plants, much will be learned about bracts and their forms and appearances which would be too foreign to our present subject to describe in this connection.



Fig. 97. Diagram of bud

A flower of *Dianthus* cut vertically, as represented at *fig. 99*, shows the petals and stamens inserted on the receptacle *below* the ovary; the seeds are numerous, and borne on a central column; and the ovary is surmounted by two distinct styles. The whole pistil is shown at *fig. 100*; there are no stigmas at the summit of the styles, but the upper or convex side of each style bears small stigmas on its surface. The stamens, ten in number, alternately long and short, are represented spread out at *fig. 101*. The ovary having acquired its full size and ripened, *fig. 102*, is called a *capsule*, and opens by valves, commencing at the top and splitting down. This description of the Pink gives a general idea of the plants of the Pink family, but there is considerable variation in some kinds, which will be learned as the student advances; and to attempt to fully explain all their peculiarities now would only tend to cause confusion in the mind.



Fig. 98. Petal of *Dianthus*.

There are several species of *Dianthus*. The one selected for illustration, *D. Caryophyllus*, is what is commonly known as the Clove Pink, and from it have been produced the double varieties called Carnations and Picotees. The florists of Germany and Italy have given most attention to the cultivation of these flowers, and

they supply the world with the best Carnation and Picotee seed. This plant in its wild state is found growing on the south side of the Swiss Alps at a low altitude, where the winters are not severe. The Alpine regions are celebrated for the number and variety of plants growing there in their wild homes; some of the most beautiful hardy plants in cultivation are originally from these localities. Mrs. SIGOURNEY sang,

"Mock dwellers mid yon terror-stricken cliffs!
With brows so pure, and incense-breathing lips,
Whence are ye? Did some white-winged messenger,
On Mercy's missions, trust your timid germ
To the cold cradle of eternal snows,
Or, breathing on the callous icicles,
Bid them with tear-drops nurse ye?"

Tree nor shrub

Dare that drear atmosphere; no towering pine
Upreads a veteran front; yet there ye stand,
Leaning your cheeks against the thick-ribbed ice,
And looking up with brilliant eyes to Him
Who bids you bloom unblanched, amid the waste



Fig. 99. *Dianthus*. Flower cut vertically.

Of desolation. Man, who panting, toils
O'er slippery steeps, or, trembling, treads the verge
Of yawning gulfs, o'er which the headlong plunge
Into eternity, looks shuddering up,
And marks ye in your placid loveliness—
Fearless, yet frail—and, clasping his chilled hands,
Blesses your pencilled beauty. 'Mid the pomp
Of mountain summits rushing to the sky,
And chaining the rapt soul in breathless awe,
He bows to bind you drooping to his breast,
Inhales your spirit from the frost-winged gale,
And freer dreams of heaven.

The common, perennial, garden Pink is an offspring of *D. plumarius*. The Chinese Pink is a biennial plant, that is, it starts from the seed and completes its existence in two years; it commences to flower at the end of the first summer, lives over winter, and completes its life at the close of the second summer. The Sweet William is another species of *Dianthus*, *D. barbatus*. The word, *Dianthus*, is derived from the two Greek words, *dios*, divine, and *anthos*, a flower: that is, God's flower, or the flower of Jove, probably so called with special reference to the Clove Pink, on account

of its beauty and delightful fragrance. One of SHAKESPEARE's charming characters says,

"The fairest flowers of the season
Are our Carnations and streaked Gilliflowers."

The *Lychnis* or Ragged Robin cultivated in our flower gardens belongs to the Pink family, and the Corn-Cockle growing in the fields, producing showy, reddish-purple flowers, is a species of *Lychnis*; this is quite a pest among grain, as it is difficult to separate its seed from wheat, and when very much of it is ground into flour with the wheat it makes bread dark colored and bitter, and when present



Fig. 100. *Dianthus* Pistil.

in too great quantities it is quite poisonous. The common Chickweed belongs to a branch of this natural order, but is different in some points from any of the plants just mentioned, and it would be well to examine it carefully after the *Dianthus* and *Lychnis* have been well studied.

The leaves of Carnations and Pinks are linear in outline, and, to some extent, resemble grass; in this respect they form an exception to the great class of exogens or outside-growers to which they belong. Professional florists in the vicinities of large towns pay great attention to the cultivation of Carnations and Picotees, and these flowers are an important item in their trade—white ones, especially, are raised in im-

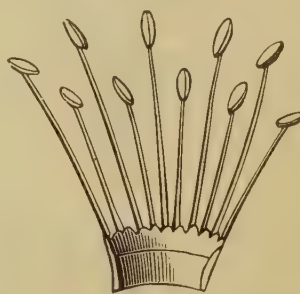


Fig. 101. *Dianthus* Stamens.

mense numbers for cutting during the winter season for decorations of all kinds. The distinction between a Carnation and a Picotee is in the marking or arrangement of the colors. A Carnation has the colors in splashes or stripes running from the base of the petal to its edge, or it is white or of a single color. A Picotee has the color spread evenly over the petal, excepting the margin, which is of another distinct

color. There is, therefore, nothing in these names indicating a difference in the kind of plant,—they are employed only as florists' distinctions. Carnations and Picotees have been bred so long for their peculiar marks that their



Fig. 102. Dianthus Capsule.

seed will produce their like to a great extent;—the skillfully raised seeds of the Carnation will produce plants, a large number of which are well marked Carnations, and the seeds of Picotees will produce a fair share of Picotees.

Young plants raised from seed or from cuttings are almost hardy in our climate, and sometimes endure the winter well without protection, but it is always best to cover them lightly with fallen leaves, and it is absolutely necessary to give protection to older plants. When a plant raised from seed is particularly admired, it can be kept and increased by propagating it by layers; in this way many fine varieties have multiplied under skillful management, and florists offer a long list of kinds of almost every conceivable color and style of marking. The Carnation



Fig. 103. Mallow, (*Malva sylvestris*.)

is a very desirable plant for the window garden, and with fair treatment gives abundant satisfaction.

Let us now pass to the consideration of a very distinct and easily recognised order, the *Malvaceæ* or Mallow family. We all know the little round-leaved Mallow, the fruit of which the children call "cheeses," a pestiferous plant in gardens and cultivated grounds. There is

another species, the High Mallow, *M. sylvestris*, often found growing on the road-sides, which is here represented by the engraving, fig. 103. The leaves, it will be noticed, are alternate in their position on the stem and are palmately lobed; at the base of the leaf-stem, on each side of it, is a little leaf-form, or *stipule*; along the stem will be noticed some hairs,—these also cover the leaves on both sides, and the fruit. The flowers are on little stems or peduncles, and are said to be *axillary*, meaning that they are produced at the *axis* of a leaf or at the point where the leaf is united to the stem; they are also *regular*, that is, each part of the flower corresponds in size and shape to every other similar part.

As in our previous example, the Pink, we found bracts at the base of the calyx, so, also, we find them in this one; fig. 104 represents the calyx with three little bracts beneath it.

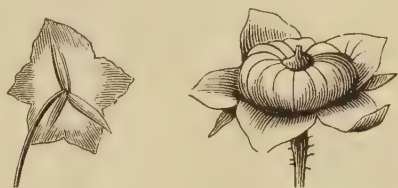


Fig. 104. Calyx and Bracts. Fig. 105. Mallow Fruit.

The calyx is five parted or, in other words, the five sepals of which the calyx is composed are united together at their bases so as to form a little cup. The petals are five in number and distinct, or not united; they are heart-shaped, but as they are attached by the small end, instead of being called *cordate*, meaning heart-shaped, they are said to be *obcordate*, the same as leaves or leaflets of this form are said to be obcordate when they are attached by their small ends, as was illustrated in fig. 16. The stamens, which are numerous, are joined together so as to form a tube or hollow column, and near the top of the tube they separate, each one bearing an anther, as shown at fig. 106. One of the magnified anthers is represented at fig. 107, attached to the stamen after it has separated from the column.

The ovary consists of numerous carpels or divisions, from twelve to twenty or more; the styles are as many as the divisions of the ovary, and are united into a tube along the lower part of their length but separate near the top;—this is shown at fig. 108. The column of pistils stands inside of the column of stamens, and the free ends of the styles pass up through the open end of the staminal column; their points should be seen just protruding, in fig. 103. As we observed in the Pink that the styles were not terminated by a stigma, but bore stigmas on the

upper or inner side, so in this flower there is the same formation of the styles. The ripened fruit is seen at *fig. 105*, and although it is shown in connection with the calyx the latter is not directly connected with it, but only by means of the receptacle. The calyx, the petals and the stamens are all free or unattached to the ovary. The vertical section of the flower of the Mallow, *fig. 109*, shows the relative positions of the parts, and the diagram, *fig. 110*, indicates their arrangement in the bud. The three outside arcs indicate the three bracts; the circle of five arcs next within show the sepals with their edges turned towards each other; the five dark arcs represent the sepals, and their arrangement is said to be twisted or contorted; and the last circle shows the numerous stamens surrounding the many-lobed ovary. The main features of this plant and flower are present in all the genera of this family.

The name, *Malva*, was given to these plants by the Romans, who derived it from the Greek



Fig. 106.



Fig. 107.



Fig. 108.

word *malache*, meaning soft,—an allusion to their mucilaginous properties so well known to everyone who has eaten “cheeses.” The principle plants belonging to this family and cultivated for ornament are the Malope, having species both annual and perennial, the *Althæa rosea* or Hollyhock, now so highly prized on account of its beautiful varieties produced by cultivation, the *Lavatera*, some species of *Malva*, *Callirrhoe pedata*, the *Abutilon* of several species and varieties of great beauty, the *Malvaviscus*, and the *Hibiscus Rosa-Sinensis*, cultivated in our conservatories for their handsome foliage and rich, showy flowers of scarlet or flame color. The flowers of this species of *Hibiscus* contain a coloring principle which is used by the Chinese to blacken their eyebrows to enhance their beauty, and they also prepare a blacking from it to blacken their shoes. There is also the *Hibiscus Syriacus*, commonly called *Althæa*, a hardy flowering shrub of great beauty now frequently seen in our gardens and lawns.

Some of the plants of this order are cultivated for their valuable properties. *Althæa officinalis*

is a medicinal plant, and one species of *Hibiscus* is employed in the Pacific islands in the manufacture of cordage and mats. Some species of *Hibiscus* contain oxalic acid, and are used in the tropics in the preparation of cooling



Fig. 109. Mallow, Vertical Section of Flower.

drinks and as salads. *Hibiscus esculenta* is what is commonly known as Okra, and is cultivated throughout the south for its pods, which are used either for soups or as a simple dish, boiled and dressed like Asparagus; some dwarf varieties of this plant can be raised successfully as far north as our locality by attention to the starting of plants early in a hot-bed or hot-house. The mucilage obtained from the root of one kind of *Hibiscus* is used in Japan as a sizing for paper.

A great many other uses might be stated that these plants serve, but we shall only call attention to one other member of the family, which is of such great value that the sovereignty of all the world has been claimed for it; this is Cotton, (*Gossypium*.) It is probably too much to say that “Cotton is King,” but the value of the



Fig. 110. Diagram of Mallow.

plant to the human race is inestimable. There are two principle kinds of Cotton plants, the herbaceous and the tree Cotton, so called because the plants are woody and become shrubs from fifteen to twenty feet in height; the herbaceous plants grow from two to six feet high. The substance called cotton is a mass of hairs which grows on the surface of the seeds and fills the seed-pod or “boll,” and when this is ripe and bursts open the cotton expands and covers it. “It is said that no crop in the United States presents an appearance so beautiful as

growing Cotton, especially at the gathering season when the globes of snowy wool are seen among the dark green leaves; and the beauty of the plantation is still greater in the hotter countries, where the yellow blossom or flower and the ripened bolls are seen at the same time. In June the cotton fields present the appearance of vast flower gardens. The blossom resembles that of the Hollyhock, and has the peculiarity of changing color from day to day. A flower, opening in the morning of a pale straw color, by noon will be pure white, in the afternoon a faint pink, and the next morning clear pink." The blossom of the sea island cotton is always pale yellow.

COLORS OF FLOWERS.

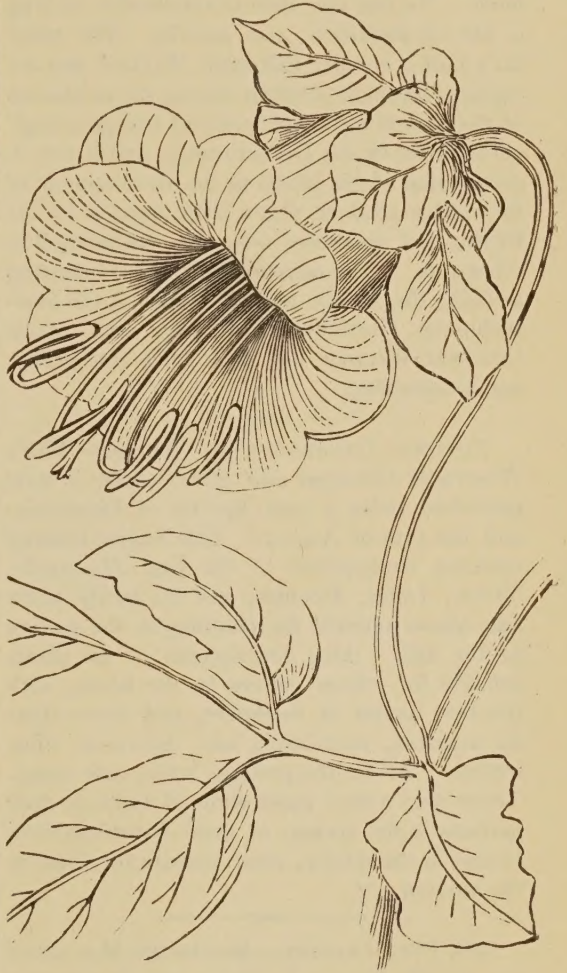
We have been talking over the colors of the flowers in our garden, and we have thought of something that perhaps other people have not noticed, and yet, perhaps they have. Now, in our Verbenas we find blue and red, but no yellow colors. In the Pansies we have blue and yellow, but no scarlet. The Phlox is brilliant scarlet, but has no true blue color, and no yellow to amount to anything. There are red and yellow Roses and Dahlias, but no blue. Is this the case with all flowers, that none of them have red, yellow and blue in the same species? I had never thought about this until this summer, when I began to complain because my Phlox was not a good yellow, and then a friend told me we would not be likely to have a good yellow Phlox, because there was a good red color and a pretty fair blue, and the three colors never came together in one kind. And so we have been looking over the flowers, and it seems to be so.—ANNA.

This is very true, and shows our young correspondent to be very observing. We do not remember any species in which the three colors are found. Sometimes we get a poor blue and a poor apology for a yellow and a good scarlet in the same species.

THE COBÆA SCANDENS

MR. VICK:—Last year, in October, I took up a plant of *Cobæa scandens* which I had running over the porch of a piazza, and put it in a large pot. I had to cut off some of the longest branches, because I had not room in the house, where I designed to have it grow during the winter if it would. Mother said she had read in the *Floral Guide* some time before, that it would do well if taken up and put in the house. I got a paper of the funny seeds—they are as flat as a shilling and about as large—in the spring, and planted them in a box, and only two grew, I believe. At any rate I saw only two plants. After a time I planted them near the piazza, and in July they began to flower,

and were nicer and nicer all summer. I only took up one because we had not room enough, for an Ivy was to grow over one side of the window and the *Cobæa* over the other. Well, it did grow and was beautiful until spring, and then I put it out in the garden, but it did not grow much. This fall I had a nice one to take



to the house, but a week or two ago a big dog, or something, broke it off close to the ground, and now I have none. Does anybody have plants for sale.—YOUNG GARDENER.

Most florists, we think, keep young plants for sale, both spring and autumn. The *Cobæa* is a most charming plant, both for house and garden, and we give an engraving of a flowering branch.

CARNATIONS.—I have had this summer several Carnations that I grew from seed last season. They flowered this summer. If I put them in the house will they continue to flower this winter, or had I better let them remain in the garden? Some old people say they will bloom in the house, and some say not.—ALLEN.

You had better let them remain in the ground. The *Monthly* or *Tree Carnation* flowers during the winter, but not the common one.

HON. MARSHALL P. WILDER.—This venerable and honored gentleman has just reached *three score and twenty*, and we learn from the *American Cultivator* that the Horticulturists of Massachusetts embraced the opportunity to pay their associate and friend a graceful compliment in honor of the eightieth anniversary of his birth. To but few men is vouchsafed so long a life of usefulness and activity. For more than half a century COLONEL WILDER has occupied a foremost position among the promoters of the agricultural, horticultural and pomological interests of the United States, and it was in recognition of his labors in the development of the earth's products that a large number of his friends and associates united in tendering him a banquet. The occasion was also interesting as being the fiftieth annual dinner of the Massachusetts Horticultural Society, with which COLONEL WILDER has been long and prominently identified.

AUTUMN CATALOGUE OF BULBS.—*Vick's Illustrated Catalogue and Floral Guide* is now published twice a year, the 1st of December, and the 15th of August. The August number contains descriptions of the best *Hyacinths*, *Tulips*, *Lilies*, *Pæonies*, and all hardy bulbs and plants suitable for planting in the garden in the fall. Also descriptions of all plants suitable for winter culture in the house, with the best modes of treatment, and instructions for watering, ventilation, etc. Scores of illustrations. All for the postage, a two cent stamp. Those who wish a good show of bulbs in their gardens in the spring, or good flowers in their houses in the winter, must prepare for them in the autumn.

OUR PUBLICATIONS.—Besides this MAGAZINE we publish VICK'S FLOWER AND VEGETABLE GARDEN, an elegant work, with lots of illustrations, and six beautiful colored plates—five of Flowers and one of Vegetables. It is a book of 170 pages. Price 50 cents in paper covers, \$1.00 bound in cloth. An *Illustrated Catalogue*, with hundreds of engravings, and 100 pages of reading; sent to all who apply, enclosing a five cent stamp for postage.

BOUND VOLUMES OF THE MAGAZINE.—Early in December we shall have the numbers of the MAGAZINE bound in neat cloth covers, and shall be able to supply those who desire the volume of 1878 bound. It will make a very handsome volume of nearly four hundred pages, with twelve colored plates. The price, including postage, will be \$1.50. This volume will be an elegant Holiday Present.

LATE AND EARLY.—We were rather late in getting out the October number, in consequence of delay in the preparation of the colored plate, as we were anxious to give a good plate of bulbs at this time. For a similar reason we place this number in the hands of our readers unusually early, so as to give all the information possible, respecting Fall Plants and Planting, before frosts shall put an end to all garden operations at the North.

CLOTH COVERS.—We hope all our subscribers have preserved the numbers of the MAGAZINE, so that when the next number arrives they will have a complete set for binding. Any book-binder can bind the MAGAZINE, but cannot furnish neat cloth covers, so we have had made some very elegant cloth covers which we will send by mail, postage free, for twenty-five cents each.

OUR COLORED PLATES.—Our colored plates are so handsome that a good many people take them out for framing, etc. This we do not like because it spoils the looks of the MAGAZINE, which will make an elegant book when bound at the end of the year. To prevent this we will send extra plates to any one at *five cents* each.

CLUBS.—Additions of one or more can be made to clubs at any time, at club rates. Those who have paid \$1.25 can form a club of four more, and have the benefit of club rates for all, by sending \$3.75 more. Club subscribers are not confined to one post-office. We will send the MAGAZINE anywhere in the world.

TRIALS.—To those who wish to see a number or two of the MAGAZINE before subscribing, we will send a copy for Ten Cents, or three copies for Twenty-five Cents. A good many people are ordering copies at these prices, and sending them to their friends.

BACK NUMBERS.—We can furnish full sets of the MAGAZINE for the year. New subscribers, therefore, can commence with the January number.

MOLES.—Will some of our readers who have had experience in destroying moles please tell us the best way to check or prevent their ravages?

EXTRA COPIES.—We will supply our subscribers with extra copies of any number, for ten cents each.

IF a number fails to reach you, notify us by postal card.



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